

A LONGITUDINAL STUDY OF FAMILY PROCESS INFLUENCES ON  
SOCIOECONOMIC STATUS ACHIEVEMENT AMONG SOUTHEAST  
ASIAN IMMIGRANT ADOLESCENTS: IMPLICATIONS FOR  
PARENT EDUCATION AND K-12 EDUCATION

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## **Dedication**

To my husband, J. H. Lee, my daughter, Erin Lee,

And my younger brother's family

## **Abstract**

Based on Bronfenbrenner's Process-Person-Context-Time research model, this study explores individual factor effects of family context (i.e., parents' acculturation), family processes (i.e., parental involvement and parent-child conflict), and adolescents' individual characteristics (i.e., self-esteem and gender) on adolescent children's SES achievement (i.e., highest education and annual income) in adulthood. In addition, this study explores the interplay effect of those family and individual factors on adolescents' SES achievement in adulthood.

Structural Equation Modeling (SEM) procedures were used because this study aims to test the conceptual model of Southeast Asian immigrant adolescents' long-term SES achievement using the Children of Immigrant Longitudinal Study, a ten-year national panel data. The hypothesized relationships in the model include the followings: (a) positive effect of parents' acculturation on parental involvement and on adolescents' SES achievement in adulthood and negative effect on parent-child conflict (b) negative effect of parental involvement on parent-child conflict and positive effect on adolescents' self-esteem and on SES achievement (c) negative effect of parent-child conflict on adolescents' self-esteem (d) positive effect of adolescents' self-esteem on SES achievement.

This study reveals the individual effects of family processes and adolescent individual characteristics on Southeast Asian immigrant adolescents' long-term SES achievement. More essentially, the interplay effect of family processes and adolescent individual characteristics takes a critical role in the adolescents' SES achievement by potentially mediating or moderating the parents' SES effect. Implications for parent

education and K-12 education for Southeast Asian immigrant families were discussed in the way to help immigrant adolescents succeed in the host society socioeconomically.

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## **Chapter 1. Introduction**

### **Research Purpose**

Given increasing immigrant populations and ethnic diversification in the United States, there is interest in the adaptation of immigrant adolescents into the U.S. society as it may influence their future achievements and contributions as citizens. Southeast Asian immigrants, including Cambodian, Hmong, Laotian, and Vietnamese, have been one of the fastest growing ethnic minorities for the last two decades (U.S. Census Bureau 2000, 2010), yet little is known about the processes that influence Southeast Asian children' and adolescents' long-term adaptation. Knowledge about the adaptation process can provide scholars and educators, who work with Southeast Asian immigrants, with better understanding about what the immigrants challenge and with better ways to help them succeed in education and careers in the host society.

Parental contribution to adolescents' developmental outcomes would be deep and wide in academic, social, physical, and psychological areas. Southeast Asian immigrant parental contribution has been well documented in various areas such as academic achievement (e.g., Bankston & Zhou, 2002) and self-esteem (e.g., Ying & Han, 2008). Among immigrant parental influences on child development, parents' English proficiency or knowledge about mainstream culture may impact their children's academic, social, or psychological development. However, based on Bronfenbrenner's ecological perspective, parental structural factors such as parental acculturation or education level do not play alone in adolescents' development. Family processes (i.e., parental involvement and parents-child conflict) and adolescents' individual characteristics (i.e., self-esteem and gender) may also play a role jointly in adolescents' development. This study, based on

the ecological perspective, explores how family process and individual factors are associated with parental structural effect (i.e., parental acculturation and socioeconomic status) and how those are associated with immigrant adolescent children's later socioeconomic status (SES) in terms of highest education and annual income in adulthood, for Southeast Asian immigrant adolescents. By doing so, this study will expand our knowledge about immigrant parents' roles and family dynamics and its subsequent adolescents' adaptation into the American society.

Southeast Asian immigrant adolescents are perceived as a model minority. They are often congratulated publicly on their high academic achievement (Ngo & Lee, 2007; Caplan, Choy, & Whitmore, 1992; Rumbaut & Ima, 1987) and on success in adapting to American society (Zhou, Lee, Vallejo, Tafoya-Estrada, & Xiong, 2008; Xie & Goyette, 2003). For example, Southeast Asian youth's GPAs may exceed those of their white counterparts and all other ethnic minority youth except for East Asian Americans of Korean, Chinese, and Japanese country of origin (Rumbaut et al., 1987) or exceed those of any East Asian and white Americans (Song & Glick, 2004). In contrast, studies have reported that Southeast Asian immigrant adolescents may suffer from low levels of self-esteem (Wu & Chao, 2005; Rhee, Chang, & Rhee, 2003; Lorenzo, Frost, & Reinherz, 2000), and high levels of family conflict (Juang, Shed, & Tagaki, 2007; Xiong, Detzner, & Cleveland, 2004; Nguyen & Williams, 1989). These negative experiences sometimes lead adolescents to join Asian gangs (Hong, 2010) and result in high rates of juvenile delinquency (Go & Le, 2005; Zhou & Bankston, 1998), and elevated rates of suicide ideation (Wong, Brownson, & Schwing, 2011), which likely contribute to adolescents' early exit from their schools or educational programs. Yet, few empirical studies have

been conducted about relationships among their self-esteem, family context and processes, and their adaptation later on in terms of SES attainment. This study would fill gaps in our knowledge about Southeast Asian youth's adaptation process from adolescence to adulthood with a comprehensive model that includes parental acculturation, family processes, adolescents' self-esteem, gender, and later outcomes of highest education and income level.

**Family context and immigrant adolescents' development.**

*Family socioeconomic status reproduction.* Research suggests that immigrant parents' degree of acculturation measured by their English proficiency and knowledge about the American society, is an important element in the adolescents' socioeconomic adaptation (Teranishi, 2010; Portes, Fernandez-Kelly, & Haller, 2005). In other words, immigrant adolescents with higher family socioeconomic status (SES) or higher parental capital are guided to access and follow paths that lead them to achieve higher education more easily, while the adolescents with lower family SES or lower parental capital have more limited availability to achieve higher education. This class reproduction frame has been familiar rhetoric in education, since Coleman and his colleagues (1966) wrote the report, Equality of Educational Opportunity. Coleman and his colleagues (1966) insisted that educational disparity would not be overcome through schooling because the effect of family background (e.g., parental education, amount of reading material at home, parents' aspirations for their children's further education, and/or parents' interest in their child's schooling) was stronger than the effect of schooling.

Yet, evidence suggests that immigrant children's social and psychological factors mediate between family context and immigrant adolescents' educational attainment. For

example, adolescents' educational aspiration (Marjoribanks, 2003) and educational/occupational expectation (Xie et al., 2003) appear to mediate the family SES' impact on the children's educational and occupational attainment in adulthood. Studies showed that parenting factors—parental control, parent involvement, and parents' educational expectation—mediated high school educational achievement's impact on the children's later educational attainment (Keller & Tillman, 2008; Zhou et al., 2008; Kao, 2004). These studies reveal that immigrant family processes between parent and child may serve as a vehicle that promotes or challenges later individual achievement and adaptation; in other words, the family relational context itself may affect the reproduction of the family SES. In addition, factors within the individual adolescent such as educational/occupational aspirations also play a role in class reproduction.

There are family and individual factors other than parents' SES that contribute to Southeast Asian immigrant adolescents' achievement, including parental involvement, parenting style, and individual educational aspirations (Keller et al., 2008; Zhou et al., 2008; Portes, 2007; Kao, 2004; Portes & Hao, 2004). Studies imply that these factors do not play out in solitary relationships, but through interactions that play out differently depending on the family context and on the individual, and that have long term impacts. The mediating factors examined in the previous studies, however, are too limited to individual values on education or parenting to explain the socioeconomic achievement of Asian immigrant families and children.

***Family process, gender, and immigrant adolescents' self-esteem.*** To immigrant adolescents, family context is the foremost context of their psychological adaptation into the host society (Greene & Way, 2005). Emotional and relational support from family

rather than mainstream peers, teachers, or mental health professionals, has been determined to significantly influence their self-esteem (Oppedal, Roysamb, & Sam, 2004; Kim, Brenner, Liang, & Asay, 2003). However, because the family context naturally conveys cultural tensions between heritage culture and mainstream culture, interactions occur among family members who have different cultural and lingual orientations that can have either positive or negative effects on the adolescents' self-esteem.

Although many families with adolescents experience intergenerational conflict, intercultural conflict is unique as an immigrant family process, and Southeast Asian immigrant families are no exception (Ying & Han, 2007b; Rosenthal, Ranieri, & Klimidis, 1996). The intercultural conflict is primarily caused by a discrepancy in the speed of adaptation to the new, mainstream culture in language or values (Sluzki, 1979). For example, children progress day by day in their English ability and adopt American values through contact with mainstream culture in their school experiences. In comparison, their parents may have limited opportunities for exposure to the mainstream culture due to a lack of support systems for parents, language barriers, and/or tight work schedules. To some immigrant parents, such acculturation lag can be an obstacle to being actively involved with their children's school and social lives (Turney & Kao, 2009; Kao, 2004). Therefore, parental acculturation levels may influence how well immigrant parents are able to support and guide their children. Less involvement in their children's lives as well as acculturation differences between parents and their children can also contribute to – conflict (Zhou, 1997; Rumbaut, 1994). As a result, these family processes surrounding the issues of parents' acculturation, parental involvement, and conflict between Southeast Asian immigrant parents and their adolescent children demonstrate direct and indirect

influences on the adolescents' self-esteem (Nguyen, 2008; Greene et al., 2005; Chiu, Feldman, & Rosenthal, 1992).

It is probable that the process of immigration makes immigrant families change their perception of what it means to be a male or female, and their ways of defining each gender and its roles, because of the differences in cultural norms regarding gender between their culture of origin and host culture (Dion & Dion, 2004, 2001). Immigrant parents have to acculturate to different values and gender roles from those of their country of origin, shifting their roles in the labor market or at home in the host society. Asian immigrant children might observe that their mothers have more power within the family than before immigration because of increased financial contributions or paternal absence from home due to work, while their fathers have decreased power (Qin, 2009). They might also observe their parents' marital conflicts in the process of changing to new gender roles and gender relations in the host society (Qin, 2009). Children's observations in the processes of parents' changing gender roles can affect developing gender roles for children themselves. In addition, the intercultural discrepancy about defining who a girl (or a daughter) is and who a boy (or a son) is may lead immigrant parents to treat their daughters or sons differently (Dion et al., 2004). For example, Southeast Asian immigrant girls reported that their parents are unfair to their sons and daughters: they practice more strict discipline and control with daughters (e.g., Tajima & Harachi, 2010; Xiong et al., 2004). Such gendered family experiences may have different influences on boys' and girls' psychological well-being and later SES achievement.

Another contribution to later socioeconomic achievement to consider is the immigrant Asian adolescent's psychological status in terms of self-esteem. In general,

adolescence is a significant period of developmental transition from childhood to adulthood, and individuals can experience internal confusion and conflicts that affect their psychological status in the short term, and can have a lasting impact on adaptation (Meeus, Schoot, Keijsers, Schwartz, & Branje, 2010). For immigrant adolescents, however, adolescence can be an especially challenging period. While experiencing the developmental trajectory of normative adolescent growth, immigrant adolescents experience cultural confusion and conflicts that play out internally and in their social contexts. They may experience different, possibly competing cultural messages from their parents, whose cultural origins are different from those of their peers or teachers. This is negatively related to the adolescents' psychological well-being (Rhee et al., 2003; Tsai, Ying, & Lee, 2001; Lorenzo et al., 2000; Ying, 1995).

Taking into account the cultural distance in language or values between parents' Asian heritage culture and American mainstream culture (Sam, 2000; Berry, 1997) some Southeast Asian immigrant adolescents go through their adolescence with lower self-esteem than do many other ethnic adolescents (Greene et al., 2005; Rhee et al., 2003). Scholars have had concerns about adolescents' low self-esteem because self-esteem has been reported as a psychological well-being factor that is highly associated with one's overall quality of life later on (Boden, Fergusson, Horwood, 2008; Mahaffy, 2004; Zimmerman, Copeland, Shope, & Dielman, 1997). Yet, little is known about how Southeast Asian immigrant adolescents' self-esteem impacts their later socioeconomic attainment within this ethnic group not comparing to other ethnic groups.

Although research has revealed clear relationships between Asian immigrant adolescents' educational achievement and family context and self-esteem and family

processes, little is known about the interplay in the relationships of these factors and later socioeconomic achievement. Longitudinal research by Flouri (2006) suggests that individual factors and family context processes do interact to directly or indirectly affect later educational and occupational achievement. Flouri's (2006) 26-year follow-up of British birth cohort data revealed that parental involvement in the education of children at age 10 was positively related to the children's self-esteem, which had an indirect impact on the children's educational attainment at age 26 with internal locus of control as a mediator.

This study intends to examine mechanisms connecting the socioeconomic achievement of Southeast Asian immigrant adolescents to personal and social processes that occur within the family context—family processes unique to this population such as parental involvement in education and intercultural and intergenerational parent–child conflict that is affected by parents' acculturation levels and adolescents' self-esteem.

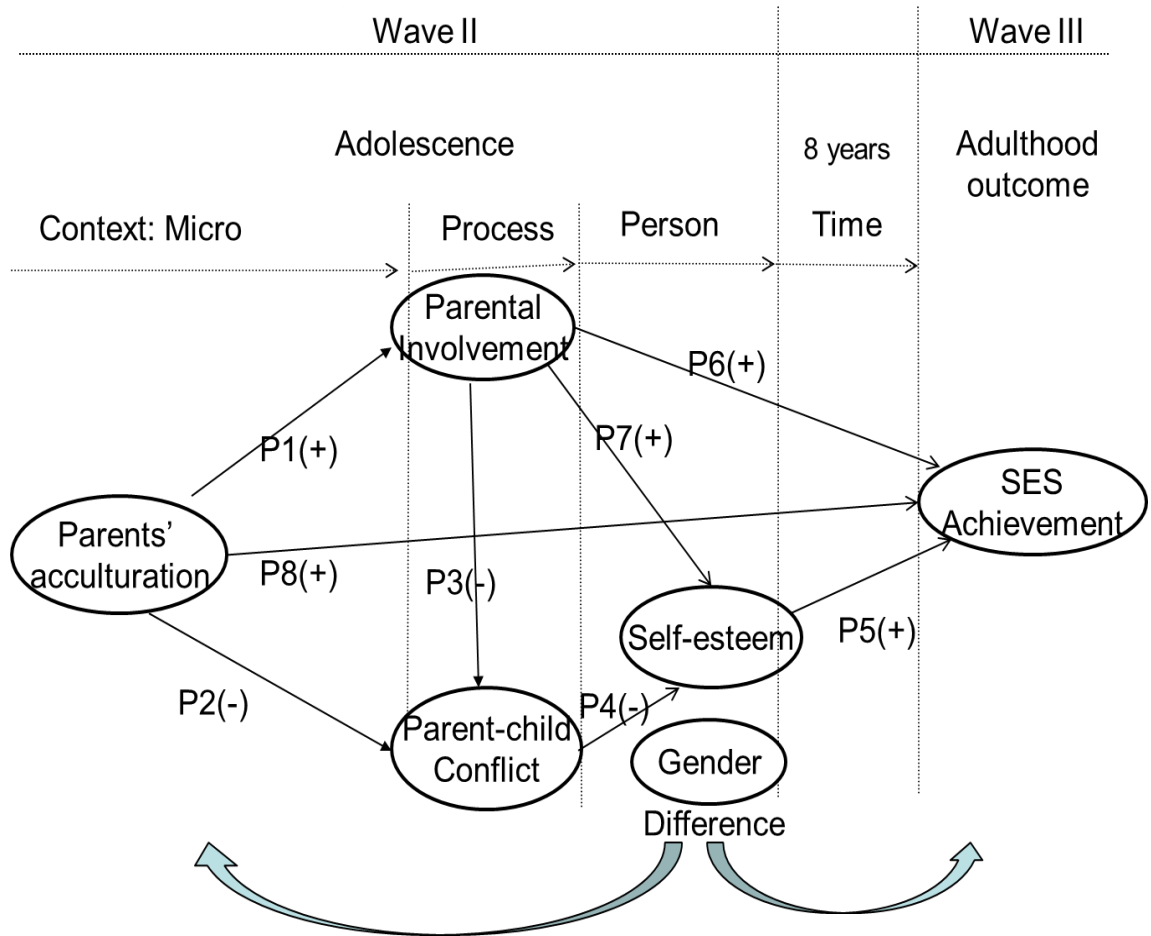
### **The Conceptual Model**

The study is guided by Bronfenbrenner's bioecological perspective (2001, 1979). This perspective posits that human development is the product of the interaction of human and environment among person, process, context, and time (see chapter 2 for a detailed explanation about these concepts).

Figure 1 displays a conceptual model for the study. The first purpose of this study is to test whether the model can explain Southeast Asian immigrant adolescents' long-term SES achievement overall and by gender. The model includes process, person, context, and time as follows. First, the time dimension is represented by an 8-year time span from adolescence to young adulthood (Time). According to Bronfenbrenner's



chronosystem paradigms (1988, p. 82-86), this research design belongs to “short-term longitudinal design” (1988, p. 84) which allows identification of the impact of prior life experiences or life transition on subsequent development. Second, family context represents the dimension of context (Context). Family context is included as the microsystem or location in which face-to-face interactions take place between the adolescents and the parents who may have different levels of acculturation in language and cultural orientation. Third, parental involvement and parent–child conflict represent the dimension of process (Process). These two family processes are included as proximal processes where the adolescents interact with their parents within microsystem (i.e., family). Fourth, adolescents’ self-esteem and gender represent the dimension of person (Person). The variables included as personal attributes are affected by family processes and affect the later adolescents’ SES achievement. The variables are selected based on the ecological perspective’s Person – Process – Context – Time (PPCT) research models.



*Figure 1.* Conceptual model of Southeast Asian immigrant adolescents' long-term SES achievement. Children of Immigrant Longitudinal Study wave II and wave III will be used.

### **Hypothesized paths and gender group difference.**

**Path 1.** Parents' levels of acculturation is associated with parental involvement. It has been reported that the parents' lack of English proficiency and lack of knowledge about American society are the most significant barrier for Asian immigrant parents' involvement in their children's school and social lives (Turney et al., 2009; Sohn & Wang, 2006; Kim, 2002). Immigrant parents' acculturation allows them to communicate more with the children's teacher, peers, parents of peers about school demands,

curriculum, workload, and so on. Connections with other mainstream people related to their children's education increase the Asian immigrant's parents' social capital, which they can invest in their children's educational involvement at home, school, and in their social sphere. Accordingly, parents' acculturation will positively relate to parental involvement.

**Path 2.** Parents' acculturation is associated with parent-child conflict. Nguyen et al. (1989) reported that Vietnamese adolescents whose parents were more acculturated to the mainstream American culture experienced less conflict with their parents. Parents' levels of acculturation, harmonizing with their children's levels of acculturation, reduced intercultural conflict between the parents and their children. In addition, adolescents whose parents speak and understand English do not need to be cultural brokers for their parents, a reversed parent-child role where parental authority likely loses (Lee, 2001; Zhou, 1997). Lam (2005) suggested that parent-child conflict increases among Vietnamese immigrant families where parents lose authority because of the imbalance between parents' low acculturation and adolescent children's increasing autonomy. Therefore, parental acculturation that enables immigrant families to keep parental authority would decrease the parent-child conflict. Accordingly, parents' acculturation will negatively relate to parent-child conflict.

**Path 3.** Parental involvement is associated with parent-child conflict. Zhou (1997) and Rumbaut (1994) suggested that parental involvement reduced immigrant Parent-child conflicts by narrowing the difference in educational expectations between parents and children. Parental involvement was measured as the children's schoolwork and helping with their homework. Connection with mainstream people such as teachers or

children's peers and parents and regular communication about their children's school demand with partners can give the parents opportunities to have more realistic expectations and education goals for their children. In other words, obtaining information about the child's education from the outer world through parental involvement would help parents understand more about their child. In this regard, greater parental involvement makes better or close parents-child relationship through parent-child conflict. Accordingly, parental involvement will negatively relate to parent-child conflict.

***Path 4.*** Parent-child conflict is associated with adolescents' self-esteem. Self-esteem is composed of self-worthiness and self-confidence and is reflected by influential figures (Rosenberg, 1965; Coopersmith, 1967; White, 1959). Conflict with parents negatively influences adolescents, harming their confidence and worthiness. Conflict with parents has been reported as a strong predictor in explaining adolescents' self-esteem across ethnicity (e.g., Kuhlberg, Pena, & Zayas, 2010; Yeh, Tsao, & Chen, 2009). Emotional and cultural conflict with parents expressed through anger or aggression, and cultural differences from parents are the most significant risk factors to adolescents' self-esteem within the family context (Juang et al., 2007; Cho & Bae, 2005; Greenberger & Chen, 1996). Accordingly, parent-child conflict will negatively relate to adolescent's self-esteem.

***Path 5.*** Self-esteem in adolescence predicts their SES achievement in adulthood. Although little is known about this relationship using longitudinal data among Southeast Asian immigrant adolescents, the association has been tested using non-immigrant adolescent longitudinal panel data. For example, longitudinal studies with cross ethnic participants have revealed that self-esteem in adolescence was significantly associated to

educational attainment (Flouri, 2006) or educational and occupational attainment in adulthood (Trzesniewski, Donnellan, Moffitt, Robins, Poulton, Caspi, 2006). Wang, Kick, Fraser, and Burns (1999) revealed significant self-esteem effects at age 25 on educational and occupational attainment at age 32. From those empirical studies, it seems that self-esteem in earlier life stages affects SES achievement in later life stages. A few studies on Asian immigrant adolescents have shown a positive outcome: their self-esteem positively influenced their adolescents' academic achievement (e.g., Qin, Rak, Rana, & Donnellan, 2012). Accordingly, adolescents' self-esteem will positively relate to the adolescents' SES achievement in adulthood.

***Path 6.*** Parental involvement in adolescence predicts adolescents' SES achievement in adulthood. According to Kao (2004), Asian American adolescents whose parents liked to talk about their school curriculum, activities, and future college education showed higher educational achievement. Parental involvement increases the family's social capital, which is highly related to their children's educational achievement as well as educational attainment. The reason is that parents' social capital gives better access to information, knowledge, and resources that allow a better chance for college entry for the children (Teranishi, 2010). Accordingly, parental involvement during adolescence will positively relate to adolescents' SES achievement in adulthood.

***Path 7.*** Parental involvement is associated with adolescents' self-esteem. In the study of Nguyen (2008), more involved parenting induced higher self-esteem for Vietnamese American adolescents than did less involved parenting. Ying and Han (2008) also reported a positive relationship between Southeast Asian immigrant adolescents' self-esteem and parental involvement. Based on Nguyen's (2008) study and Ying et al.'

(2008) study, it is assumed that adolescents whose parents are more involved with them would have higher self-esteem than the counterpart. Accordingly, parental involvement will positively relate to adolescents' self-esteem.

***Path 8.*** Parents' acculturation predicts adolescents' SES achievement in adulthood. Portes (2007) and Zhou et al. (2008) reported a significant relationship between parental acculturation and their children's educational achievement across different ethnicities. It is assumed that parents' higher acculturation level contribute to their children's having easy access to appropriate information and resources in the mainstream culture for higher educational achievement. Adolescents' higher educational achievement will lead to higher occupational achievement and income level. Accordingly, parents' acculturation will positively relate to adolescents' SES achievement in adulthood.

***Gender group difference.*** The eight paths in the conceptual model would show different association and prediction by adolescents' genders because different gendered-family processes in adolescence result in different developmental outcomes in adulthood. Southeast Asian immigrant adolescents reported different family experiences associated with their gender (e.g., Tajima et al., 2010; Xiong et al., 2004). For example, in Zhou et al.'s (1998) study, girls reported more strict discipline and stronger control and parents' lower academic aspiration than boys, which led girls to experience more distance from and conflict with their parents. In addition to different family processes by gender, Southeast Asian immigrant adolescents reported self-concepts varied by their gendered-different family dynamics. For example, girls' lower self-concepts were associated with that girls had larger cultural discrepancy in relation to their parents (Rosenthal et al., 1996), less closeness to parents (Chen, 1999), and more negative relationship with their

parents (Kiang & Fuligni, 2009) than boys had. Accordingly, the hypothesized relationships in the model would be differently associated and predicted in the boys' and the girls' groups.

### **Significance of the Study**

The study contributes to the understanding of the long-term adaptation of Southeast Asian immigrant adolescents through mechanisms of personal self-esteem and family processes within the context of parents' acculturation. Most studies provide time-limited examinations, for example connecting Asian immigrant descendants' self-esteem and family processes (Wu et al., 2005; Ying et al., 2007b; Kim & Ge, 2000; Rosenthal et al., 1996). Little has been known about long-term effects of the adolescents' self-esteem and the quality of family processes on adolescents' development. This study provides an understanding of the importance of the family environment to Asian immigrant adolescents' self-esteem development and of the significance of the effects of family and individual factors in adolescence for their later socioeconomic achievement.

Practically, the knowledge obtained from this study contributes to improving the intervention for and education of Southeast Asian immigrant children and their families. Further, practitioners or teachers who work with Southeast Asian immigrant adolescents can better understand the role that parent-child conflict has on children's self-esteem, as well as children's later SES achievement. Professionals can help adolescents gain easier access to psychological services or intervention programs for their well-being (Lorenzo et al., 2000). Given Parent-child conflict, parents' acculturation and family involvement in education, it would seem that family professionals would actually have quite a number of areas to in which engage with families. They can help parents understand the importance

of family processes to their children's later socioeconomic outcomes. And, they can find ways to enhance parental support for children's educational and social lives and form better Parent-child relationships by narrowing acculturating discrepancies.

The study contributes to advancing research methods, based on Bronfenbrenner's ecological perspective, in the field of research on Asian immigrant adolescents' development and in developmental research in general. Although the ecological perspective has been applied to immigrant adolescents' development, the dimensions of context (e.g., Parent-child relationships within the microsystem) have been emphasized for study overlooking the other dimensions (e.g., Hong, Cho, & Lee, 2010). However, the ethos of the ecological perspective is to explore interplay of human and environment and to consider how such interplay affects over time rather than emphasizing context alone. The bioecological perspective suggests that the same context can offer different developmental paths for each person because the context interacts with different personal traits. For example, it is assumed that Asian immigrant adolescents benefit from their parents' higher human and social capital in their higher education achievement/attainment but that their psychological status and conflict with their parents can make a difference in the association. In this regard, a more complete research model helps to map out a more thorough explanation of immigrant adolescents' development. Accordingly, testing an ecological model in this study promotes research methods to address immigrant adolescents' development.



## **Chapter 2. Background**

This chapter addresses the theoretical, conceptual, and empirical background for this study. It consists of two sections: (a) Bronfenbrenner's ecological perspective and (b) literature review. The first section on the theoretical background will address Bronfenbrenner's ecological perspective focusing on the process, person, context, and time dimension to understand the interplay of the relationships of the dimensions in human development. The section also includes why the perspective is pertinent to this study compared to other theories that can be alternatives for this study. The second section of literature review will address conceptual and empirical background regarding each variable in relation to other variables presented in the conceptual model for this study. Gender difference will be also addressed at the end of each variable review.

### **Bronfenbrenner's Bioecological Perspective**

#### **The perspective.**

Bronfenbrenner (1979) conceptualized human development as a joint function of a developing person and his or her nested environments, interacting with historical and chronological time dimensions. Bronfenbrenner's perspective extends knowledge about human development to new spheres, such as layers of contexts that directly or indirectly influence human development. Following his ideas on human development, the four so-called PPCT model components—process, person, context, and time—could be used to understand individual's developmental outcomes.

In the perspective, process means interactions between a developing person and his or her environment. According to the perspective, human development results from forms of “proximal processes” between a developing person with his or her unique

characteristics and immediate contexts, such as family, school, and community (Bronfenbrenner, 1979). This means if there was no interaction between a person and the environment, meaningful human development would not occur. As interaction patterns or types differ by age, so too proximal processes can differ by age. For example, proximal processes for young children within a family context are feeding or comforting a baby. For adolescents, they may be parent–child conflicts, parental involvement in education (Bronfenbrenner & Ceci, 1993).

The component of person is referred to as characteristics possessed by and unique to the individual. The attributes of a developing person—such as genetic inheritance, developmental stages, abilities, or dispositions—contribute to changing environments, thus differentiating developmental paths (Bronfenbrenner, 2001, 1979).

Contexts are the locations where interactions occur; they include micro-, meso-, exso-, and macro-systems (Bronfenbrenner, 1979). Microsystems are where face-to-face interactions occur as proximal to a developing person, such as family, school, and community. Mesosystems are where two or more microsystems interact, such as parent–teacher–peer or family–peers connections for children’s attending school. In this regard, parental involvement to children’s social and school lives through participation in school activities or in social activities is regarded as a mesosystem to child development (Lee & Bowen, 2006; Seginer, 2006). Microsystem and mesosystem are the most important two environments in human development in that those directly influence a person’s development. Exsosystems influence the developing person but are not directly involved with that person. An example would be the parents’ work schedule, workplace, or social media or their influence on the children’s development. Finally, macrosystems are

overarching frameworks embedded in the other three systems, such as culture and social structure. The nested contexts interact with personal characteristics, which influence adolescents' development. For example, Suárez-Orozco, Gaytan, Bang, Pakes, O'Connor, and Rhodes (2010) found that, for immigrant adolescents, personal characteristics—such as psychological status, the degree of motivation to engage in academics, and English proficiency levels—contributed to different trajectories of the adolescents' educational outcomes over time, interacting with their microsystem of family context—such as parents' education, parental employment status, and family SES.

The component of time refers to physical time and phenomenological time (Bronfenbrenner, 1995). Physical time indicates three levels of time (i.e., microtime, mesotime, and macrotime) (Bronfenbrenner & Morris, 1998). Microtime means continuity or discontinuity in face-to-face microsystem such as Parent–child or adolescent-peer process; mesotime means days and weeks; and macrotime means generational change (Bronfenbrenner & Morris, 1998). Phenomenological time indicates timing of one's life events that may or may not make meanings in one's life (Bronfenbrenner, 1995). For example, in a study by Updegraff, Mchale, Whiteman, and Thayer (2006), the formation of younger Mexican American adolescents' cultural orientation was related to the spending time patterns: The younger adolescents reported that they spent more time every day on interacting with their peers than their parents, which the adolescents' cultural orientation more attached to mainstream culture (Updegraff et al., 2006).

### **Vantage points of the ecological perspective.**

This study examines microsystem (i.e. parents' level of English) and mesosystem (i.e. parental involvement in child's education), family process (i.e., parental involvement and Parent-child conflict), adolescents' psychological well-being (i.e., self-esteem) influencing on later adolescents' SES achievement. For this study, PPCT model in the ecological perspective fits because the perspective posits that adolescents' developmental outcome is a compound product of layers of environments, personal characteristics, proximal processes, and time dimension. The vantage of this perspective will be more clearly understood, in comparison with other potential theoretical perspectives, to study the phenomenon of immigrant adolescent longitudinal development.

Two perspectives that explain immigrant adolescent developmental outcomes are the segmented assimilation theory and family resilience theories. The segmented assimilation theory, developed by sociologists (e.g., A. Portes and M. Zhou), has been a useful framework in studies on immigrant children to theorize how they adapt into mainstream society. Family resilience theories developed by family stress scholars (e.g., Hill, McCubbin, and Patterson) have recently reached out to immigrant families (e.g., Rumbaut, 2000), focusing on how they adapt in a new society while coping with social, cultural, and economical adversity.

**The segmented assimilation theory.** The segmented assimilation theory stresses how immigrant children obtain long-term SES achievement—downward or upward mobility—compared to parents' SES, which is influenced by parents' human and economic capital, family structural resources, and host society's modes of immigrants (Portes, 2007; Zhou, 1997). Children with parents who have higher human and economic

capital, rich family resources, and who live in strong communities achieve consonant acculturation. In this case, levels of acculturation between parents and children are similar and communication across generations is consistent regardless of generation's cultural difference. Consequently, such children would move ahead and achieve upward mobility on account of parental support and guidance. The counterpart children experience dissonant acculturation, where the children reject parental culture and communication across generations breaks down. The children are not protected from racial discrimination outside of the home or juvenile delinquency, downward mobility results.

The theory can be a good tool to explain consonant versus dissonant acculturation, an aspect of family processes between immigrant parents and children, and its impacts on children's SES achievement. In this perspective, one's social structural factors make family members' acculturation levels divergent, which impacts one's SES achievement. In other words, one's SES achievement relies on the social status of one's family's and on the family and community environment. The theory, however, neglects the personal factors that might interact with the family and social environment, consequently that would modify developmental paths and outcomes. The theory also misses more concrete family processes between parents and adolescent children beyond immigrant family members' discrepancy of acculturation. The current study explores immigrant adolescents' long-term SES achievement but does so in relation to immigrant adolescents' psychological status of self-esteem and parent-child conflict—a process critical for the quality of parent-adolescent relationships and later adolescents' SES achievement in adulthood.

**Family resilience theories.** Another alternative perspective can be family resilience theories, in which families' functional processes protect against immigrant adolescents' stressful life events. Family resilience theories are rooted in the ABCX family stress model by Reuben Hill (1949), in which the family crisis (X) results from the hardships of the stress event a family faces (A) interacting with the family's resources (B) and the family's definition or meaning of the event (C) (Hill, 1949; McKenry & Price, 1994; McCubbin & Patterson, 1982). Focusing on family strengths and resources to cope with family adversity, family resilience theories explain the relationship between family adversity, family adjustment or adaptation, and children's outcomes (e.g., Conger & Conger, 2002). In particular, Conger et al.'s (2002) family resilience theory could apply to immigrant family processes and children's development for this study: (a) immigration itself can be regarded as a challenging, adverse event for some Southeast Asian immigrant families; (b) parental English proficiency, high parental involvement in children's education, and low parent-child conflict in the host society can be regarded as family resources and strengths to evoke family adaptation; and (c) children's self-esteem and later SES achievement can be regarded as children's outcomes. Family resilience theories as a framework applicable to this study, primarily focus on family processes. Yet, this is not sufficient to explore family processes, this study also explores layers of contexts such as the microsystem (e.g., parental English proficiency) and the mesosystem (e.g., parental involvement in children's education). This study is grounded in such contexts that may affect family processes (i.e., parent-child conflict) that, in turn, may affect children's self-esteem immediately and SES achievement in the long term.

Finally, neither the segmented assimilation theory nor family resilience theories account for gender difference in immigrant adolescents' adaptation. For example, the segmented assimilation theory does not mention the role of gendered adaptation or gendered family processes in acculturation. In fact, gender has been invisible in studies and in theories about immigrant adolescent development or at most treated as a control variable (Suárez-Orozco & Qin, 2006; Dion et al., 2001). Understanding gender effects on immigrant adolescent development gives insights about the challenges confronting immigrant adolescents (Dion et al., 2001). In fact, taking into account the gender inequality of Southeast Asian cultures (Uba, 2003; Zhou et al., 1998), boys and girls may differently interact with their parents within family contexts where heritage culture is maintained and transmitted to immigrant children (Kwak, 2003; McLoyd, Cauce, Takeuchi, & Wilson, 2000). In this regard, gender is not just a biological category but also a social category (Suárez-Orozco et al., 2006). Moreover, gender is a personal characteristic that contributes to differentiating individuals' everyday experiences and ultimately makes a difference in the individuals' development (Bronfenbrenner, 2001). Therefore, it is essential to study gender effects on Southeast Asian American adolescents' development along with their family contexts, and family processes using the ecological perspective.

### **Southeast Asian Immigrant Families**

Southeast Asian Americans include people from the following countries: Cambodia (or Khmer), Laos, and Vietnam, located in Southeast Asia (Lynch & Hansen, 2006; Rumbaut, 1995). More than one million Cambodian, Laotian, Vietnamese, and Hmong refugees entered the United States after the Vietnam War and the civil wars in

Cambodian and Laos in 1975 (Rumbaut, 1995). Most East Asians (e.g., Korean, Chinese, or Japanese) are voluntary immigrants while more than 80% of Southeast Asians are non-voluntary immigrants (Ying et al., 2008; Lynch et al. 2006). The 2010 U.S. Census showed that there were 276,667 Cambodian Americans, 232,130 Laotian Americans, 1.74 million Vietnamese Americans, and 260,073 Hmong Americans. Vietnamese Americans grew 55% from 2000 to 2010, which is greater than Hispanic or Latino population, 42%.

Although there are differences in history and subtle culture among the four ethnic origins, Southeast Asian culture has been strongly influenced by Buddhism, Confucianism, Taoism, or mixture of these (Lynch et al., 2006; Xiong et al., 2006). According to Smith-Hefner (1993) who conducted a ethnographic study on Cambodian families and their children's education in metropolitan Boston, traditionally Cambodian education was linked to Buddhism in the way that monks served as educators. Only young males who could become monks had formal education. Confucianism emphasizes filial piety, hierarch of authority, and self-discipline (Lynch et al., 2006; Xiong et al., 2006). Taoism emphasized harmony, the practice of training, and asceticism (Lynch et al., 2006). Southeast Asian immigrant family dynamics have been captured as authority (e.g., Lam, 2005; Lee, 2001), and filial piety and harmony (Ying & Han, 2007a).

## **Literature Review**

This section will review the empirical literature that support proposed relationships between the variables represented in the conceptual model of individual and family process and context influences on Southeast Asian immigrant adolescent SES achievement (see Chapter 1). Each section will provide a conceptual definition of the



variable, review measurement issues, and explore research behind the relationships with other variables in the model and gender difference about each variable. The order of the variables reviewed follows the flow of the model from left to right. Therefore, the variable of adolescents' SES achievement, the adolescents' developmental outcome variable in the study, will be represented finally. The parents' acculturation variable will be represented first.

### **Parent's acculturation.**

Rudmin (2009) suggested the three constructs of culture which are visible artifacts, visible behaviors, and fundamental attitudes and values; for example, (a) visible artifacts are food, clothing, or architecture (b) visible behaviors are language use or rituals (c) fundamental attitudes and values are individualism or collectivism.

Immigration forces people to move into another culture. Therefore, immigrants changes in their old heritage culture into a new host culture. Acculturation is the process of changing his/her own culture in preference in ways of doing, behavior, language use, attitudes, or beliefs when immigrants come into contact with new host cultures and begin adopting these cultures and accepting the new culture, either at an individual or group level (Ayers, Hofstetter, Usita, Irvin, Kang, & Hovell, 2009; Berry, 2005; Berry, 1997). According to Berry (2005, 1997), individual and group level factors influence individual acculturation processes. Individual level factors include age, gender, education, status, migration motivation and expectation, cultural distance, and personality. Group level factors include political and economic context of society of origin, demographic factors, social support, and attitudes of society of settlement.

Acculturation has been measured by changing behaviors or attitudes in the areas of cultural boundaries between heritage culture and mainstream culture such as language, social values or norms (Rudmin, 2009). Rudmin (2009) insisted that host language learning is an essential aspect in the acculturating process in that language is a tunnel for immigrants to initiate and keep interacting with the host world. To immigrant parents, the host language abilities can be the foremost tool that enables the parents to help their children adapt into the host society. Therefore, parental language acculturation has been studied in relation to children's development in which the host language use or proficiency has been treated as one of main constructs (Wang, 2009). For example, immigrant parents with English limited proficiency hesitate to share a child's developmental issues with school teachers (Shon et al., 2006), reinforce more cultural origin that causes more conflict with their adolescent children (Lim, Yeh, Liang, Lan, & McCabe, 2008; Costigan & Dokis, 2003), and that influences children's lower academic achievement than children with parental English proficiency (Wang, 2009).

Berry (2005, 1997) pointed out that acculturation is influenced by individual and group factors. Whether voluntary or non-voluntary immigration is can be important in Southeast Asians' acculturating process and its outcomes; non-voluntary immigrants reported less acculturation than sojourners in areas of language and lifestyles (Wong-Rieger & Quintana, 1987). Levels of acculturation are affected by society of origin. Vietnamese immigrants were more acculturated than Laotian and/or Cambodian immigrants showing positive association between acculturation in language in the host society and formal education year in home country (Tajima et al., 2010; Anderson, Moeschberger, Chen, Kunn, Wewers, & Guthrie, 1993). Although Anderson et al. (1993)

reported that females were less educated than male counterparts and acculturation was positively related to year of education in the home country, they did not find gender differences in acculturation among Southeast Asian immigrants.

In this study, parental language acculturation will be examined in relation to parental involvement, Parent–child conflict, adolescents’ self-esteem, and adolescents’ SES achievement. In the next section, parents’ acculturation in terms of parental involvement will be addressed. The sections of Parent–child conflict, adolescents’ self-esteem, and adolescents’ SES achievement will be followed to further examine parents’ acculturation.

### **Parental involvement.**

*Definition of parental involvement.* Parental involvement consists of parental practices that promote children’s intellectual and nonintellectual growth (Seginer, 2006). Parental educational involvement is conceptualized by parents’ interest and participation in their children’s education whether at home or at the child’s school whatever is related to child’s academic achievement. In this study, educational involvement consists of three different kinds of involvement: home involvement, school involvement, and social involvement. Examples of home involvement are helping with children’s homework at home, talking with children about their school lives, and communicating with children about their future education plans. Examples of school involvement include volunteering at the children’s school and participating in children’s school activities or PTA meetings (Kim, 2002). Examples of social involvement include talking with children about the child’s friends or peers and knowing the friends or the friends’ parents (Ying et al., 2008). Social involvement is that knowing and communicating with a child’s friends or the

friends' parents help the parents obtain information and knowledge about the child's education and guide directly the child's learning at home (Pong, Hao, & Gardner, 2005).

Parental involvement is more than parental control and child discipline. Parental control and discipline of children demand emotional and physical commitment. However, parental involvement demands emotional and physical commitment as well as a willingness to participate in diverse activities with and for children. Engaging in such activities allows the children to appreciate their parents' commitment and participation positively. Although parental involvement is an important factor in immigrant adolescent development, little is known about the association between parental involvement and adolescents' self-esteem and long-term SES achievement outcome.

***Parental involvement and acculturation.*** Southeast Asian immigrant parents experience many barriers in participating in their child's school involvement. These barriers include time conflict with work schedule, no child care, problems with transportation, not feeling welcomed by schools, and low English proficiency (Turney et al., 2009). Traditional cultural beliefs in school and in child's teacher and in family relations also contribute parents to have less involvement with child's school and/or social activities (Thao, 2003). Language barriers and cultural beliefs are two of the most salient factors that make it harder for Southeast Asian parents to be involved with adolescent children's education.

Sohn et al. (2006) and Kim (2002) noted that Asian immigrant parental school involvement was strongly correlated with parental English proficiency. This is especially true for Southeast Asian immigrant parents who do not learn English and had no formal education experience in their home country. These parents are more likely to be alienated

from their children's school community (Thao, 2003). In addition to the language barrier, adherence to Confucian or Buddhist cultural origins makes it more difficult for parents to be comfortable with school involvement. Confucian tradition does not encourage parents to be involved in their children's school life in activities such as visiting schools or classrooms because school teachers are deemed to have a higher authority over the children's school education (Sohn et al., 2006). Smith-Hefner (1990) suggested that a Theravada Buddhist cultural origin makes it harder for Cambodian immigrant parents to become involved in their children's schools. Hmong parents with a Confucian cultural background believe that school teachers have primary responsibility for their children's school success, while parents are responsible for their children's social success through behavior discipline (Plumb, 2011). In this regard, Hmong parents consider children's school involvement as less important than home involvement (Mason-Chagil, 1999). According to Thao (2003), some Southeast Asian immigrant parents believe that if they become more involved with the school that it might interrupt their work of school officials or teachers.

Language barriers hinder Southeast Asian parents from being involved with larger mainstream communities like peers' parents or geographic community meetings and only involve with limited their own ethnic organizations. Southeast Asian immigrant parents with English proficiency challenges are likely to live in linguistically, socially, and systemically isolated neighborhoods, a context that works against the children learning English, adopting American values, or obtaining social resources (Xiong et al., 2004; Zhou et al., 1998).

Parental English abilities to read, write, speak, and listen are keys to guiding their children's acculturation and ability to monitor their children's development outside the home (Portes & Rumbaut, 1996). Parental English proficiency helps immigrant parents monitor their child's behaviors more effectively through communication with neighbors, the child's peers, teachers, and doctors (Wang, 2009). With limited sources to monitor and evaluate their child's behaviors, Southeast Asian immigrant parents' concerns heightened about negative peer influences on their children like involvement with drug, gang, or violence (Xiong et al., 2004; Lee, 2001; Zhou et al., 1998; Smith-Hefner, 1993). Studies focus on school involvement of Southeast Asian immigrant parents in relation to the parents' language barriers, so little is known about the relationship between social and home involvement and parents' acculturation.

#### **Parent-child conflict.**

*Definition of parent-child conflict.* Parent-child conflict refers to negative interactions between parents and their adolescent child, including expressed anger, aggression, disagreement, or opposition about cultural values or norms by adolescents (Lee, Choe, Kim, & Ngo, 2000; Roosa & Beals, 1990). Immigrant parent-child conflict is conceptualized by intergenerational and intercultural conflict. Intergenerational conflict can be viewed as common across ethnicity in the parent-child relationship as the child reaches adolescence, a time to develop autonomy and independence. Intercultural conflict between immigrant parents and their adolescents is caused by acculturation discrepancies in cultural orientation such as in education, Parent-child decision making process, and respect for elders (Lee et al., 2000).

***Parent–child conflict and parents’ acculturation.*** According to Chung (2001) and Phinney, Ong, and Madden (2000), Southeast Asian Americans reported higher levels of conflict with their parents in family roles, expectations, education, and career than any other groups of Asian Americans. This outcome seems to be related to the parents’ acculturation level as non-voluntary immigrants. Ying and Han (2008) reported that Southeast Asian non-voluntary immigrant parents were less acculturated than East Asian voluntary immigrant parents and Southeast Asian immigrant adolescents had higher conflicts with their parents than East Asian immigrant adolescents. Americanized second generation adolescents and less acculturated parents may have a range of disagreeable points depending on their degree of discrepancy in acculturation.

The quality of Parent–child relationships depends on whether parents use a different language than their children, or how proficiently parents communicate with their children using the same language. For example, Tseng and Fuligni (2000) conducted a study on Asian parents and their children to examine how home language use influenced the Parent–child relationships. The data was cross-sectional and two-year longitudinal. The adolescents who used a language different from that of their parents at home reported lower family cohesion and less emotional closeness to their parents than those who did not. Moreover, the traits did not vary across students’ grade levels over time. However, in a more recent study, Oh and Fuligni (2010) suggested that same language use was not related to the quality of parent–child relationships but that language proficiency by parents and their children was more strongly related. Oh et al.’s (2010) and Tseng et al.’s (2000) works imply that, although parents and children whose languages are the same could develop closer and more positive relationship, determinant of the quality of Parent–

child relationship is language proficiency. Whether the language is mainstream or heritage, the proficiency is to make it possible for immigrant parents and children to deeply communicate each other.

Parents' acculturation levels in English and cultural orientation affects Parent–child relationships. In cases where the parents are not fluent in English and lack of knowledge of the American systems, the children are likely to take the role of cultural brokers for their parents, reversing family roles so the parents are guided by their children. Go (1999) reported that when Southeast Asian immigrant adolescents help their parents as cultural brokers parent–child conflict increased and predicted juvenile delinquency. However, the role of cultural brokering is not always related to parent–child conflicts and the children's psychological well-being, as Trickett and Jones (2007) concluded in their literature review on the Vietnamese children's cultural brokering and its effects on their families. However, parents who do not speak English well lose their parental authority because they cannot actively guide the children's education and social life (Weaver & Kim, 2008; Lee, 2001; Zhou, 1997). Lam (2005) argued that parent–child conflict increases among Vietnamese immigrant families and parents lose authority because of the imbalance between parents' low acculturation and adolescent children's increasing autonomy.

Parents' acculturation, when parents are inclined to embrace cultural heritage values, influences parent–child conflict. Zhou (1997) suggested that Vietnamese parents want their adolescent children to be socialized within the Vietnamese culture and to preserve their heritage, while the children want to define themselves as American and even have anxiety that they might never become American. The hot spots to escalate



intercultural conflict between immigrant parents and their children, commonly found across studies on Asian immigrant families, are dating and dress issues (Qin, 2008; Lee, 2001; Zhou, 1997). Hmong parents with less acculturation prefer arranged early marriage during high school for their children, especially for their daughters, and do not allow adolescents to contact friends of the opposite gender freely, while children want to choose partners by themselves and have more autonomy in choosing friends. From the perspective of some Hmong parents, loose, big, and baggy clothes are a sign that their adolescent children are becoming “gang bangers” (Lee, 2001, p. 517), while the adolescents just want to dress in current fashions (Thao, 2003). In research by Nguyen et al. (1989), Vietnamese adolescents reported higher conflicts with their parents as their parents embraced more heritage cultural values (which emphasize family obligation, gender inequality, and respect to parents) than the mainstream cultural values (which emphasize independence and family sharing).

***Parent–child conflict and parental involvement.*** Zhou (1997) and Rumbaut (1994) pointed to parental educational involvement that reduced immigrant family conflicts by narrowing the difference in educational expectations between parents and children through close communication about the children’s schoolwork. Many Southeast Asian immigrant parents believe that high educational achievement/attainment makes it possible for their children to climb the economic mobility ladder (Lee, 2001; Zhou et al., 1998). The belief may lead parents to have unrealistically high educational expectations and aspirations for their children. Such parents’ unrealistic expectations and aspirations can be one of the areas of parent–child conflict (Qin, 2008). More involvement with child education can give parents opportunities to have more realistic expectations and

education goals for their children through communication with their adolescent child and peers and teachers of their child, which help promote the quality of relationship between parents and children.

Research has reported that Southeast Asian immigrant adolescents complain about their parents' lack of involvement in school and with teachers and that it can interfere with a good parent-child relationship. Thao (2003, p. 34), a sixth-grade Hmong child described his parents' school involvement:

I think my parents don't understand how American people work and their school system. My parents don't come to my conference. They don't even know who are my teachers. My teachers also don't even know who are my parents. When my parents come to school, they don't speak English so they rather stay home. My teachers do not bother to try and reach out to my parents and always depend on a Hmong translator who is not always available. I am not sure that they know what is going on in my life because they don't work together to plan a good future for me.

Two things come out in that testimony. First, there is the immigrant parents' language barrier issue. The parents' English proficiency limits goes along with their lack of social and school support systems, which might include an easily accessible translator, bilingual school staff, transportation, and scheduling flexibility. Another issue is the cultural difference between the Southeast Asian heritage culture and mainstream American culture in terms of family roles. This links to how differently the immigrant parents and children envision themselves as parents of children or children of parents in the American society. The discrepancy between their conceptions of their lives as parents or children in the host society can interrupt the quality of the relationship between immigrant parents and children (Lee, 2001). For instance, it has been reported that Asian immigrants' parenting style is more control-oriented, with high parental authority over

children (Chao & Tseng, 2002; Chao, 1994). Asian immigrant parents may like to view themselves as ones that discipline or control their children. However, Southeast Asian immigrant children may desire their parents to encourage and express love to them as much as mainstream parents do by saying, “I love you” or “you did an excellent job and I congratulate you for it” (Thao, 2003, pp. 32–33). Children want their parents to support and be involved with them. The discrepancy between parents’ parenting and adolescents’ desires leads Southeast Asian immigrant adolescents to evaluate their parents’ behaviors as relatively overprotective and unaccepting when compared to the behaviors of mainstream parents (Xiong et al., 2004; Herz & Gullone, 1999). According to Chao (1994), Asian immigrant parents’ parental control or authoritarian parenting should be interpreted in terms of the interdependent family context found in Asian cultures as opposed to that prevalent in Western cultures. However, family roles perpetuated by their parents at home may not appeal to some second-generation children. In one study, overprotection and strong control by parents “led the adolescents to feel either rebellious against parents or to feel hopeless about their relationship with their parents” (Xiong et al., 2004, p. 8).

Parental involvement can indicate the influences of the mesosystem on the children’s development by connecting the microsystems of family–peer, family–school, family–community, and so forth. In addition, parental involvement is a proximal process to expedite the children’s development by providing them with “progressively more complex interactions” (Bronfenbrenner, 2001, p. 6). Accordingly, parental involvement is an important factor in adolescents’ development in adjusting home rules and values and family activities to be more like those of the child’s school. Increase of congruency

between home and school can lead the parent and their children to reduce conflict caused by acculturation discrepancy and home-school different messages.

***Parent–child conflict and gender difference.*** Studies have indicated that Southeast Asian American girls have more conflict with their parents than boys do. This is partly because parents more strongly discipline and control their daughters, wanting them to be moral and virtuous, and partly because girls endorse more egalitarian gender roles than boys do (Zhou et al., 1998).

As reviewed in the previous section related about parent–child conflict, immigrant families’ parent–child conflicts are related to the cultural discrepancy that results from the acculturation gap between parents and adolescents. In studies, the gap between Southeast Asian immigrant parents and adolescents has been directly measured using the responses of parents and adolescents (e.g., Nguyen et al., 1989) or using the adolescents’ perceptions about the cultural discrepancy with their parents (e.g., Rosenthal et al., 1996). In Nguyen et al.’s (1989) study, Vietnamese parents and adolescents showed greater cultural discrepancy: Parents adhered more closely to traditional family values than adolescents did, while adolescents were more inclined to embrace mainstream American values. Interestingly, the gap was much greater in parent–daughter dyads than in parent-son dyads. Rosenthal et al. (1996) reported that Vietnamese immigrant adolescents perceived that their parents adhere more to traditional family values (i.e., family obligation) than they do, while they are more inclined to mainstream values (i.e., independence) than their parents. In Rosenthal et al.’s study (1996), interestingly, girls perceived a greater cultural gap with their parents, especially more with fathers, than boys did. In addition, girls were stronger advocates for mainstream cultural values related

to adolescents' autonomy. The cultural discrepancy between parents and girls was positively related to frequency and seriousness of conflict, but this was not the case for the discrepancy between parents and boys.

Southeast Asian immigrant families have a dual standard in which higher moral standards apply more to women while more flexible standards are applied to men (Zhou et al., 1998). In other words, parents more strongly control daughters than sons and believe that daughters should be more obedient and more subordinate to elders than sons should. According to Smith-Hefner (1993), the reasons that Southeast Asian immigrant parents demand that daughters comply with strong moral standards are connected to virginity and marriageability. Parents believe that a daughter seen by neighbors or the community as "bad" would cause them to lose face and the family's good reputation, which may ultimately decrease the probability of the daughter's marriage with an intelligent and good man (Xiong et al., 2004; Zhou et al., 1998). Vietnamese father remarked on the dual standard in the study of Zhou et al. (1998):

Of course a boy can get away with more than a girl. A boy can do more before he gets a bad name. A boy can get a bad name and still become good later. But if a girl gets a bad name, I don't know what she can do to get over [it] (p. 176).

Parents' more strict control on daughters makes Southeast Asian immigrant girls "more vulnerable to shame and isolation than boys" (Xiong et al., 2004, p. 9) and "aware of the contradictions, complications, and frustrations inherent in the changing meaning of appropriate gender roles" (Zhou et al., 1998, p. 181). Vietnamese and Cambodian girls were reported to have experiences more corporal punishment (Tajima et al., 2010) or experiences more serious punishment at home (Zhou et al., 1998), compared to

counterpart boys. Cambodian girls' juvenile delinquency was significantly related to parental discipline—yelling, slapping, spanking, making youth feel ashamed, etc.—over and beyond the influence of peer delinquency, but counterpart boys' delinquency was not related to parental discipline but to the influence of peer delinquency (Go et al., 2005).

In summary, the level of parental acculturation, especially in terms of English proficiency, is one of the most important barriers to parental involvement in their children's school. A cultural brokering role, assumed by immigrant adolescents for their parents with low English proficiency and lack of knowledge about American culture, disturbs the parents' authority, which leads to parent-child conflicts. The discrepancy of home language use between Asian immigrant parents and their children leads to parent-child conflicts by causing misunderstanding and miscommunication between them. In addition, parental involvement reduces parent-child conflict through closer communication between immigrant parents and their adolescent children about the children's lives outside the home. Southeast Asian American girls reported stronger conflict with their parents and more strict control and discipline from their parents than did boys. This may be attributable to the fact that girls are more likely to advocate autonomy and independence from their parents than counterpart boys are. Little is known about parents-child conflict in relations to parental involvement along with adolescents' gender.

### **Self-esteem.**

***Definition of self-esteem.*** Self-esteem is referred to as overall self-worthiness and self-confidence. Rosenberg (1965) defined self-esteem as “positive or negative attitude toward the self as an object” (p. 21). The orientation includes cognitive and emotional

aspects about the self; knowledge and affection about the self. The concept of self is viewed as an “object” that is perceived, reflected, and so known by individuals who “stand outside” himself or herself (Rosenberg, 1979, p. 8; Epstein, 1973). In this regard, Coopersmith (1967) stressed significant others’ influence on one’s self-esteem; especially, he emphasized family support, especially mother’s support, in developing children’s healthy self-esteem.

In addition to self-worthiness, self-esteem contains self-confidence or self-competence resulting from cumulative successful experiences. White (1959) suggested “effectance motivation” or “competence” as a primary motivation that human has intrinsically, which is to “interact effectively with his/her environment” (p. 297). In this regard, self-esteem is an intrinsic human motivation to better cope with the environment.

Self-esteem has been often treated as one of the indicators for one’s psychological well-being (Ying et al., 2008; Adams, Kuhn, & Rhodes, 2006) in that psychological well-being refers to a subjective sense of wellness in one’s life (Ryff & Keyes, 1995). People with psychological well-being feel self-worth and mastery of their environment. They are hopeful and purposeful in their lives (Ryff et al., 1995).

In the next section, the relationships between adolescents’ self-esteem and parents’ acculturation and family processes are reviewed.

***Adolescent self-esteem, parental involvement, and Parent–child conflict.*** Ying et al. (2006) studied influences of parental acculturation on the adolescents’ psychological well-being. They reported that Southeast Asian immigrant adolescents with refugee parents who were less acculturated than East Asian counterparts with voluntary immigrant parents showed lower self-esteem. The refugee parents reported lower English

abilities and more attachment to family obligation. These were associated with the adolescents' lower self-esteem. In other words, parents' acculturation is indirectly related to children's self-esteem. Adolescents with less acculturated parents may have more internal confusion and conflict because they may experience more competing cultural messages between mainstream culture and parents' culture. This could indirectly influence Southeast Asian immigrant adolescents' self-esteem development (Lorenzo et al., 2000).

There are not many studies about the relationship between Southeast Asian or Asian immigrant parental involvement and children's self-esteem. Moreover, the effect of immigrant parental involvement on children's self-esteem is not clear. For example, Ying et al. (2008) reported that parental involvement was directly related to adolescents' self-esteem. Ying et al. (2008) reported that Southeast Asian immigrant parents' involvement was significantly associated with the adolescent children's self-esteem in a positive way: increasing parental involvement resulted in increasing children's self-esteem and decreasing parental involvement decreased children's self-esteem. Moreover, the relationship between parents' degree of acculturation and children's degree of self-esteem was fully mediated by the family processes of parental involvement and Parent-child conflict. This means that parental involvement may be a mediator that transfers family structural effects to children's self-esteem outcomes. In contrast, Hong and Ho (2005) found that, for the Asian immigrant adolescents, parental involvement (i.e., communication with children, participation in child's school activities, and supervision) was not directly related to children's self-esteem in a model of the adolescents' long-term academic achievement.



Although there have been very few studies about Southeast Asian immigrant adolescents' self-esteem in relation to parental involvement, Nguyen's study (2008) gives insight into the relationship. He studied Vietnamese immigrant fathers' authoritarian and authoritative parenting style and its relation to adolescents' self-esteem. A positive relationship between the two variables (parenting style and self-esteem) was supported. That is, adolescents who perceived their fathers as having an authoritative parenting style had higher self-esteem than those who perceived their fathers as having an authoritarian parenting style. Fathers' income and educational level were not related to fathers' parenting style. According to Baumrind (1975, 1966), an authoritative parenting style includes emotional and physical involvement, supportive control, and verbal and physical encouragement of the child's behavior, while an authoritarian parenting style is characterized by directive control, evaluating the child's behavior, restricting the child's autonomy, and creating emotional distance from the child. Nguyen's study (2008) implies that Southeast Asian immigrant parents who like to be involved with their adolescent children physically and emotionally are more likely to have healthy children in terms of self-esteem.

As mentioned in the parent-child conflict section, immigrant families' parent-child conflicts are associated with an intercultural gap, especially between families with a collectivistic Southeast Asian culture of origin versus families from the individualistic, American cultural context. Immigrant families continue to practice their heritage cultures after immigration, and children are likely to be socialized both in mainstream culture and in the parental origin culture (Kwak, 2003). Based on the two different cultures, Markus and Kitayama (1991) suggested two different types of self-

concepts: the collectivistic interdependent self and the individualistic independent self. An independent self is stable and autonomous, independent from context or situation, while an interdependent self is flexible and variable by context or situation (Barry & Beitel, 2006). With respect to self-construal and self-esteem, Lam (2005) revealed that for Southeast Asian immigrant adolescents, higher independence was directly related to higher self-esteem and indirectly related to higher self-esteem through family cohesion and social support. Lam's study implies that harmonious and close family relationships may play a role in Southeast Asian American adolescents' self-esteem development, especially for adolescents living with strong parental support and involvement.

In addition, given that Parent-child conflict is important to adolescents' self-esteem, emotional support from parents is most significant for immigrant adolescents' psychological status. Oppedal et al. (2004) reported that while there was no significant effect of mainstream peers and teachers' emotional support and instrumental help on the immigrant adolescents' self-esteem, a significant effect on the adolescents' self-esteem came from emotional and instrumental support from ethnic friends and family. In a five-year longitudinal study of Black, Latino, and Asian ethnic minority adolescents conducted by Greene et al. (2005), only family support, rather than friendship support or school climate, significantly increased the immigrant adolescents' self-esteem over time across all ethnicity. Greene et al. (2005) concluded, "The quality of family relationships emerged as most consistently and strongly related to self-esteem trajectories (p. 171). Taking into account that overall Asian adolescents do not like to seek support from mental health professionals (Kim et al., 2003), good relationships with their parents are essential for the adolescents' self-esteem development.

*Self-esteem and gender difference.* For Southeast Asian immigrant adolescents, gender effects on self-esteem are inconsistent. Lam (2005) did not find gender effects on Vietnamese immigrant adolescents' self-esteem. Greene et al. (2005) did find a modest effect: Descriptive data analysis showed that boys had higher self-esteem than girls over time, but growth curve analysis showed only an intercept effect at the significant level of 0.1. However, Greene et al.'s research sample was drawn from multi-ethnic adolescents, so it is not known whether a specific group of ethnic adolescents would experience gender effects on their self-esteem. Adams et al. (2006) reported that boys' self-esteem was significantly higher than girls' self-esteem within each ethnic group studied—African, Hispanic, and European American adolescents. Way and Robinson's (2003) study, boys showed significantly higher self-esteem scores than did girls from a multi-ethnic adolescent sample in which a small portion of Asian Americans (21 percent of participants) was included. Directly examining ethnicity and gender effects on self-esteem, Dukes and Martinez (1994) reported that Asian and Native American girls had the lowest self-esteem among 10 ethnic–gender groups, including African Americans and Hispanic Americans.

As long as immigrants' parent–child relationships are different along with adolescent's gender, the Parent–child relationship impact on self-esteem may also be different in boys and girls. Girls were seen as stronger advocates of egalitarian gender roles (Barry et al., 2006) and of the virtue of children's independence (Rosenthal et al., 1996; Nguyen et al., 1989) compared to boys and/or parents. In this regard, Asian immigrant adolescents' self-esteem development would not be straightforward along with their gender. Chen's study (1999) on Asian immigrant boys and girls living in California

and Wisconsin gives insight into the relationship between parent–child conflict and boys’ and girls’ self-esteem. According to Chen (1999), among Asian boys, there was significant evidence of a positive relationship between closeness to parents and self-esteem. This was a stronger relationship in Asian boys than in European boys. However, there was no significant relationship in girls’ groups, including Asian girls. The study outcomes imply that Asian boys benefit from a close relationship with their parents in developing their positive self-concept, but Asian girls do not. Parents play more important positive roles for Asian immigrant boys, but not for the counterpart girls. In contrast to reports that parents positively impact Asian boys’ self-esteem, a negative relationship with parents more strongly influences a decrease Asian girls’ self-esteem than boys’ self-esteem (Kiang et al., 2009). Asian immigrant girls who had less harmonious relationships with their parents stayed longer in the moratorium stage to search for their identity (Kiang et al., 2009). In a less harmonious parent–child relationship, girls did make more efforts to search for the meaning of their lives more than their counterpart boys did. As a result, girls’ self-esteem scores were significantly lower than were boys’ (Kiang et al., 2009).

In summary, Southeast Asian immigrant parents’ more involved parenting with their adolescents is associated with children’s self-esteem in a positive way. Parents’ acculturation level is indirectly associated with adolescents’ self-esteem through family processes like parental involvement. Adolescents’ self-esteem is also strongly affected by parent–child conflicts and/or emotional and instrumental support from parents. It is controversial whether there is a gender effect on Southeast Asian American adolescents’

self-esteem. However, taking into account that girls have more conflict with their parents, girls may have lower self-esteem than do boys.

### **Socioeconomic status achievement.**

#### ***Definition of socioeconomic status and educational achievement/attainment.***

Generally, socioeconomic status refers to levels of education, occupation, and family income, or a combination of the three (Bradley & Corwyn, 2002; Grundy & Holt, 2001; White, 1982). Some scholars suggest more indicators such as unemployment, earnings, wealth, or home ownership (Sakamoto, Goyette, & Kim, 2009; Zhou et al., 2008). The three indicators of education, occupation, and income are highly correlated to each other (Grundy et al., 2001) and combined influence on overall one's life quality, especially on child's educational achievement (e.g., Bradley et al., 2002; White, 1982) or on mental health (e.g., Aneshense & Sucoff, 1996).

Completing school and academic excellence are the most prevalent ways to attain knowledge and skills that can be capitalized in labor markets in the immigrant children's future (Zhou, 1997). Educational achievement refers to educational outputs that are generally expressed by scores or percentiles of subject (Winkler, 1975), and educational attainment refers to completion of highest educational institutes (Kao & Thompson, 2003). These two factors are highly related to each other statistically as well as conceptually in immigrant offspring with Asian cultural origins: Educational achievement was a consistently significant factor in predicting educational attainment in Asian Americans (Kao et al., 2003; Xie et al., 2003) or Asian Australians (Marjoribanks, 2003).

For adolescents and young adults, educational achievement/attainment can make a large difference in their quality of future life than any other indicators. It can impact their occupation status or prestige and also impact their mental and physical health or their quality of new family life. Therefore, as Song et al. (2004) suggested, “paths to socioeconomic mobility are largely shaped by educational attainment” (p. 1401). Some Southeast Asian immigrant parents believe that the best way to climb the social mobility ladder is through their children’s educational attainment in the host society of U.S. (Lee, 2001; Zhou et al., 1998). The children also know, from their parents, why education is regarded as most important to live in the host society as an ethnic minority person. This notion was also reflected in their higher educational expectations (Pong et al., 2005; Kao et al., 2003).

In the next section, academic achievement and attainment will be reviewed in relations with parents’ acculturation, parental involvement, Parent–child conflict, and adolescents’ psychological well-being.

***Educational achievement/attainment and parents’ acculturation.*** The parents’ acculturation was related to their children’s achievements; parents’ English proficiency was a robust factor in their children’s achievements above and beyond the parental educational involvement at home (Kim, 2002). This implies that parental acculturation is directly related to children’s academic achievement independently from parental involvement effect on achievement. Parents with ability to speak and listen in English are able to communicate better with schools or teachers and can better support their children in academic achievement. As well, parents with fuller knowledge about a host society’s social systems including educational systems can create home culture to help their

children get higher academic achievement by aligning it with school culture and demand (Teranishi, 2010).

It is possible that lower-acculturated parents tend to give their adolescent children extra family obligations that may result in shortening homework time compared to native-born adolescents. For instance, many Hmong parents with lower acculturation in English and the American culture get help from their adolescent children, who can interpret English for the parents and drive the parents to appointments (Lee, 2001). The adolescents who do work as cultural brokers for their parents miss class occasionally and tight schedules that do not allow them to spend enough time on homework, which can be an obstruction to the adolescents' educational achievement (Lee, 2001). Based on the discussions about family obligation and the cultural brokering in which Southeast Asian immigrant adolescents might take a role, the immigrant adolescents' academic achievement might be influenced by their parents' degree of acculturation. Little is known empirically about the impact of parents' acculturation on Asian immigrant adolescents' academic achievement and attainment.

***Educational achievement/attainment and parental involvement.*** It is a common belief that parental involvement can buffer the effect of lower family background, including family SES and family composition, on immigrant children's educational attainment. According to White and Glick (2000), immigrant parents were more highly involved with their adolescent children in school work and daily life (where children are and what they are doing) than were native-born parents. In that study, immigrant parental involvement influenced positively high school enrollment for 2 years after the sophomore year, reducing the family background's effect on the high school enrollment of immigrant

children. White et al. (2000) conducted a study using a cross-ethnic sample including that countries of origin were Africa, Mexico, Cuba, Asia, West India, and Puerto Rico. Among the ethnicities, the mediating effect of parental involvement was clearer in Mexican, Puerto Rican, and Asian adolescents. This study implies that the effect of family background on immigrant adolescents' educational attainment weakens by parental involvement of immigrant parents. In addition, the study implies that parental involvement plays a role in protecting immigrant children from leaving school early.

Parental involvement has been noted as an influential factor in the Asian immigrant adolescents' academic achievement (Pong et al., 2005; Kao, 1995; Campbell & Mandel, 1990). Although Asian parents talked less frequently with their children about dating, parties, or personal problems, they talked with their children more about school work and grades than native-born parents or Hispanic immigrant parents did, which caused the second-generation children to achieve better in the academic areas than did native-born or Hispanic adolescents (Pong et al., 2005). As well, Asian immigrant parents were involved in their children's math achievement with "levels of pressure, help, and monitoring," while native-born parents were involved through more psychological support (Campbell et al., 1990, p. 64). Consistently, Kao (2004) revealed that Parent-child closeness was not related to Asian immigrant adolescents' academic achievement while parental involvement such as discussion about school and college was. These studies' outcomes come from aggregate data, so the impact of parental involvement on children's achievement among specific Asian ethnic groups is not able to be determined.

Asian immigrant parents' educational involvement is different from that of native-born parents in terms of its focus. Kao and Tienda (1995) and Kim (2002) reported that



immigrant parents were involved more with their child's academic works at home but less at school (e.g., joining PTA) than were native-born parents. They also spent more time on helping their child do homework and less loading house chores on their adolescents than native-born parents did. To immigrant parents, their educational priority for their children was on scholarly works. In contrast, immigrant parents reported less involvement in talking with their children about topics such as children's secondary school or educational experience and in participating in school activities than native-born parents did. Rather, the immigrant parents preferred more to talking with their children about future opportunities related to the higher education (Kao, 2004).

In contrast to study outcomes about the positive relationship between parental involvement and children's academic success, some studies revealed modest parental involvement effects on children's academic success or failed to provide support. For example, Yan and Lin (2005) observed that, to Asian American adolescents (12<sup>th</sup> graders), parental involvement with a child's teachers and peers and participation in school activities was not significant but the Parent-child relationship and parents' educational expectations were significant to predict the adolescents' math scores after controlling for parents' SES. According to Fan and Chen (2001), little effect of parental involvement on children's academic achievement has found from meta-analysis across multi-ethnic studies. However, Hong and Ho's (2005) longitudinal study about Asian adolescents' academic achievement, parental involvement measured as parental supervision and parents' educational expectations had no long lasting effect on children's achievement. As Fan et al. (2001) insisted, it is still not clear about how parents' SES effect is related

to children's academic achievement because many studies did not include parents' SES as a control variable as in the Hong et al.' (2005) study.

Based on previous studies on Asian parents' involvement and child's education outcomes, although Asian parents report less involvement in children's school activities including attending PTA or parent-teacher conferences, they are more involved with their children at home in ways that motivate children to better academic achievement and attainment. Yet, little is known about more comprehensive educational involvement practiced by Southeast Asian immigrant parents that covers child's peer relationship beyond home and school and its long-lasting impact on children's SES achievement. Moreover, studies on the parents' involvement have been conducted mainly in relations with academic achievement/attainment. However, the relationship between parental involvement and adolescents' academic achievement/attainment would be better understood when the adolescents' relationship with their parents, self-esteem, and family context are taken into account with the relationship

***Educational achievement/attainment and self-esteem.*** Higher academic achievement but lower self-esteem is a paradox of Asian immigrant adolescents. Studies report that Asian immigrant students have the lowest high school dropout rate and the highest GPA and SAT scores of any other ethnic groups including White (Pong, Johnston, & Chen, 2010; Feliciano, 2001). The image sustains the model minority of Asian immigrant children. In contrast, they have reported a high level of psychological difficulties, such as lower self-esteem (Greene et al., 2005; Lorenzo et al., 2000).

There have been scholarly debates with a long history about this issue. Suzuki (1977) studied about Asian immigrant children who had suffered from low psychological

well-being such as low self-concept or internalized symptoms (Suzuki, 1977). According to him, the cost of Asian Americans being a model minority also sacrifices their psychological well-being:

Asian Americans have argued that the high psychological cost paid by middle-class Asian Americans for this apparent “success” [in academic success, higher average annual income, and the rates of outmarriage with White spouse] has far outweighed the socioeconomic benefits (Suzuki, 1977, p. 25, the bracket inserted by Suzuki).

After Suzuki’s study, a few empirical studies have been done, and either do not support or only partly support the paradox. Drawing from two-wave longitudinal data, Huntsinger and Jose (2006) studied ethnic differences in depression, self-esteem, and academic achievement over time. Asian immigrant adolescents’ psychological well-being—higher depression and lower self-esteem than European adolescents—changed over time so that the ethnic difference was narrowing, and yet the ethnic difference in academic achievement (Asian adolescents were higher than European adolescents) endured over time. Chen and Stevenson (1995) reported that Asian American students’ higher achievement in math was related to their parents’ and peers’ higher expectations and the students’ positive attitudes to learn mathematics. The researchers reported that Asian immigrant adolescents’ mathematics scores were higher than those of White students, yet there was no difference between the two groups for psychological well-being in terms of stress and depression. Those two empirical studies’ outcomes did not support the public image about Asian students—high achievement with low psychological well-being.

In contrast, Qin and her colleagues partly supported the paradox. When comparing high academically Chinese achieving adolescents to European counterparts, the former adolescents' psychological adjustment was lower than their counterparts. In the study of Qin et al.'s (2012) study, when family cohesion and parent-child conflict was controlled the ethnic difference in psychological adjustment disappeared. Qin et al. (2012) suggested that family relational factors could be a clue to solve the paradox. A more important implication from Qin et al.'s study (2012) is that family relational factors can play a mediating role between psychological adjustment and academic achievement. Although Qin's and her colleagues' work was derived from Chinese immigrant adolescents, there have been similar claims in studies across Asian immigrant adolescents including Southeast Asian Americans (e.g., Bankston et al., 2002). In Bankston et al.'s (2002) study, Asian immigrant adolescents reported highest academic achievement and lowest self-esteem compared with white, black, and Latino adolescents. However, the negative relationship between the two variables for Asian immigrant adolescents was partly mediated by family capital, such as parents' SES and parents' acculturation level, which are not family relational factors but family context factors. These two empirical studies' outcomes only partly support the paradox. The paradox would be right only if there were no family relational or context factors.

Family support in Southeast Asian immigrant adolescents' academic achievement and attainment has been reported consistently as an important factor (Gloria & Ho, 2003). Gloria et al. (2003) studied what motivated Asian American college students to persist in their college enrollment in relation to comfort in the university environment, social support, and self-esteem and self-efficacy. Among Chinese, Japanese, Korean, Filipino,

Pacific Islander, and Vietnamese American students, Vietnamese Americans had the strongest will to persist in their degree plan. For that, they reported that support from family was the most important determinant, whether they continued to stay in the university or not. In Gloria et al.'s (2003) study, Vietnamese Americans had the highest or higher scores in self-esteem, college self-efficacy, and/or education degree self-efficacy among the six groups of American students. This study implies that, at a group level, higher self-esteem would be related to higher educational attainment for Southeast Asian Americans.

Despite a long history of debate about the paradox between Asian American adolescents' higher academic achievement/attainment and lower self-esteem, only a few studies have empirically investigated direct and indirect relationships between the two variables. It is noteworthy that when family relational or context factors were controlled the relationship was no longer significant.

Qin and her colleagues have dealt directly with the issue of high achievement with low psychological well-being among Asian American adolescents. They called it a "paradoxical disconnect" (Qin et al., 2012, p. 1) or an "achievement/adjustment paradox" (Qin, Way, & Mukherjee, 2008, p. 481). Notably, the paradox is maintained mainly by between-group difference studies rather than within-group difference studies. In other words, Asian American adolescents, a well-known high achiever group, do not match their high academic achievement with their low self-esteem scores based on the assumption of a positive relationship between academic achievement/attainment and self-esteem, as in mainstream adolescents (e.g., Marsh & O'Mara, 2008). Accordingly, the paradox has been addressed in the way of between-group comparison. Little is known

about how Asian immigrant adolescents' self-esteem works for their academic achievement and attainment, and whether it is a positive or negative relationship immediately or in the long run within the group. It is necessary to explore how the paradox operates within Southeast Asian Americans.

***Education achievement/attainment and gender difference.*** There has been a public concern about academic achievement and attainment gap between boys and girls in which boys fall behind girls (MSNBC, March 13, 2013; National Public Radio, February 12, 2013). There have been also similar scholarly reports about boys' and girls' academic achievement and attainment gap (e.g., Diprete & Buchmann, 2013). According to Mortenson (2004), based on the 2000 U.S. Census data, girls showed higher grades (e.g., 100 for girls versus 120 for boys enrolled below modal grade in ages 12 to 14 years), more involvement with academic or community activities (e.g., 100 for girls versus 83 for boys in participation in academic clubs), and less involvement with illegal drugs or alcohol than boys (e.g., 100 for girls versus 148 for boys in alcohol used on school property). In addition, Mortenson (2004) reported that women were more often enrolled in college, graduate schools, or professional degree programs (e.g., 100 for women versus 83 men with bachelor degree or 100 for women versus 80 men with doctoral degrees). Although the aggregated data clearly show female's outperformance in education, Southeast Asian immigrant boys' and girls' academic achievement and attainment have not been straightforward because of different values and norms around gender and education, imbedded in Southeast Asian immigrant families, that look different from those of mainstream Americans.

Studies indicated that subordinate status to men within family relations, arranged earlier age of marriage than men, early childbearing, more responsibility for household chores and sibling care for daughters are obstructions for Southeast Asian American women's concentration on their academic work and completing of schooling. For instance, women's high school drop-out occurs often due to early age of marriage and childbearing (Lee, 2001; Smith-Hefner, 1993). As well, heavier house chores and sibling care than boys make it harder for girls to focus on their school work (Lee, 2001; Zhou et al., 1998). Some parents devalue a daughter's educational success as simply attributing it to their daughter's ability to attract a son-in-law with intelligence and high earnings potential (Zhou et al., 1998).

More women's participation in education and in paid work outside of the home subverts traditional gender roles in the host society. According to Zhou et al. (1998), double family income provides better family economic safety and women can be independent from their husbands by paid work. In other words, they believe that traditional gender roles, characterized into "everything inside the house" for women and "everything outside of the house" for men (Smith-Hefner, 1993, p. 143), are no longer valid as means of ensuring family economic safety in current economic situations in the host society. As well, women's personal autonomy and independence have been accepted largely among mature Southeast Asian American women who are pursuing higher education and careers, even though it is not yet the case for girls (Smith-Hefner, 1993).

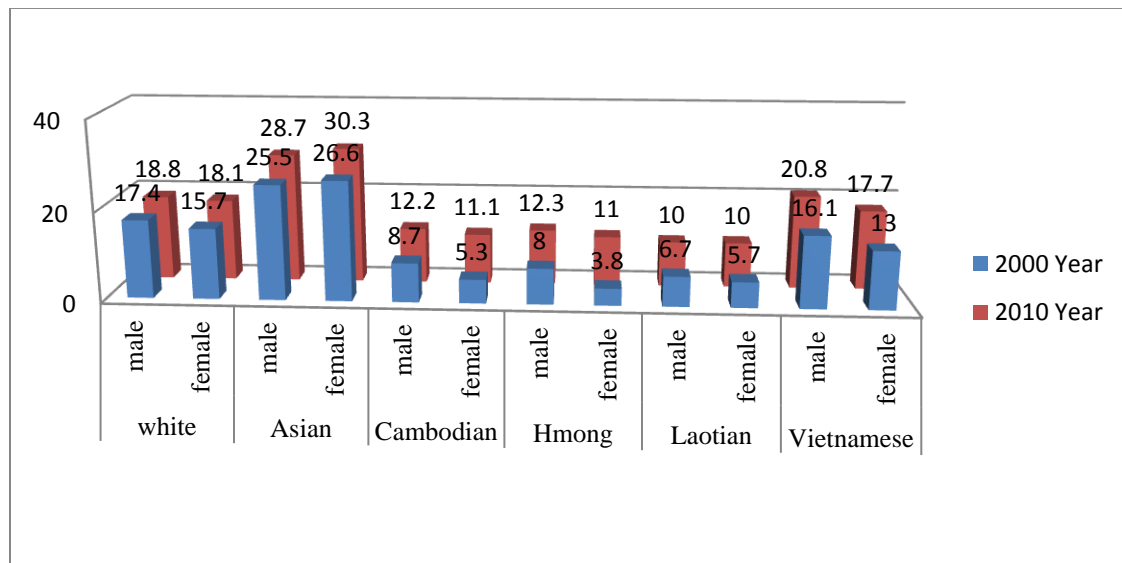
In spite of many disadvantages to keep pursuing education, Cambodian, Hmong, Laotian, and Vietnamese American women have moved toward better educational achievement/attainment and careers sometimes as much as or even much better than the

counterpart men. As for the reason for girls' outperformance, Zhou et al. (1998) suggested greater level of social control and discipline imposed on girls than boys in dating, dressing, behavior, etc. According to Zhou et al. (1998), the greater level of social control made young women feel unhappy but pushed them toward successful school lives and careers. For example, Salahuddin (2005) reported gender differences of Vietnamese American adolescents about their sense of belonging in school and academic attitude toward success. Girls showed higher sense of belonging in school and academic attitudes toward success than counterpart boys. Salahuddin's study shows that Vietnamese girls are more likely to positively envision their schools and success through their schooling than boys are. This may be a positive outcome for girls obtained from strict discipline and control by parents, as Zhou et al. (1998) mentioned that an "intrinsically undesirable situation may have desirable consequences" (p. 183).

In line with clear gender gaps in academic achievement and attitudes among Southeast Asian American adolescents, outcomes of educational attainment also show a gender gap. Although Bradon's study (1991) reported that Vietnamese American boys and girls showed relatively the smaller gender difference than Chinese and Filipinos, Vietnamese girls outperformed boys in academic attainment. Bradon's (1991) 6-year longitudinal study revealed that 43.4 percent of Asian immigrant women had 2-year degrees or higher education level compared with 31.1 percent of counterpart men. This trend showed in other ethnic groups between boys and girls, including Caucasian, African, and Hispanic American adolescents, but the gender difference was much greater in Asian immigrant boys and girls than in other ethnic groups.



Figure 2 displays the percentage of Southeast Asian immigrant males and females with bachelor's degrees aged 25 and over in 2000 and 2010 based on the U.S. Census. The data show that Southeast Asian American women's highest education level is the most, greatly increasing over the last decade. The increasing rate of white females with bachelor's degrees is 2.4 percent, while the rate of Southeast Asian American females is much higher than that of white females: 5.8 percent for Cambodian females, 7.2 percent for Hmong females, 4.3 percent for Laotian females, and 4.7 percent for Vietnamese females. In addition, the gender gap in higher education in 2010 narrowed much more than in 2000 for Southeast Asian Americans.



*Figure 2.* Percentage of Southeast Asian immigrant males and females with bachelor degree in 2000 and in 2010. Data source: US Census of Educational Attainment by Sex (2000) and Sex by Educational Attainment for the Population 25 Years and Over Universe: Population 25 years and over 2006-2010. People include ethnic alone or in combination with one or more other races.

In addition to the increasing number of females with bachelor's degrees among Southeast Asian Americans, the females are more likely to choose college majors with

higher earning potential. Song and Glick (2004) studied gender difference in lucrative college majors (e.g., accounting, finance, business, dental/medical technology, nursing, etc.) in relation to family, social, and psychological status (e.g., high school grades, home language, family structure, and parental education) among Asian ethnic groups, Chinese, Filipino, Japanese, Korean, and Southeast Asian Americans and white Americans as a reference group. Although most Asian female groups were more likely to choose college majors with higher earnings potential than white females, Southeast Asian American females were saliently outstanding in choosing those majors over the other ethnic and gender groups. Of the total, 23.3 percent of Southeast Asian American females were enrolled in business-related fields (11.8 percent of white females) and 34.2 percent in health-related fields (12.5 percent of white females). Meanwhile, Southeast Asian American males were not more likely to choose those majors than any other males, including whites.

Table 1 depicts the gender gap in median annual income in 2005 and 2011. Laotian females have the highest increasing income rate (17 percent) between 2005 and 2011, higher than overall white females and overall Asian females group (16 percent and 14 percent, respectively). For this reason, Laotian Americans' annual income gap between females and males narrowed in 2011. On the other hand, Vietnamese female have the lowest rate of increase among the twelve groups (3 percent). For this reason, the gender gap increased among Vietnamese Americans. For Cambodian and Hmong Americans, the gender gap in income endured. Although for white and Asian Americans gender gap in annual income narrowed for Southeast Asian Americans, and except for Laotian Americans, the overall gender gap endured. This means that Southeast Asian

American women's outperformance in the academic arena is not yet reflected in their annual income.

Table 1

*Southeast Asian Immigrant Males' and Females' Median Earnings (dollars) Full-Time, Year-Round Workers per Individual in 2005 and in 2011*

Ethnicity	Sex	2005 Year (\$)	2011 Year (\$)	Rate of Increase (%)
white	Male	44,727	50,140	12
	female	33,188	38,436	16
Asian	Male	48,270	52,435	9
	female	37,538	42,707	14
Cambodian	Male	32,345	36,013	11
	female	27,512	30,215	10
Hmong	Male	27,849	31,179	12
	female	25,943	28,847	11
Laotian	Male	32,195	33,601	4
	female	26,614	31,216	17
Vietnamese	Male	38,033	41,212	8
	female	29,869	30,835	3

Data source: U.S. Census of Selected Population Profile in 2005 and 2011 American Community Survey.

*Note.* People include ethnic alone or in combination with one or more other races.

There are not many studies that examine self-esteem, parent–child conflict, parental involvement, and parental acculturation. Song et al. (2004) studied the relationship between self-esteem and college major. That is, self-esteem was a significant predictor of college major only among college men, not among college women. This result drew from aggregated data, so we cannot know about self-esteem's effect on major decisions among Southeast Asian Americans. However, the result is consistent with the study of Mahaffy (2004) that obtained data from a predominantly white nationally

represented sample (i.e., 79 percent white, 13 percent black, and 8 percent Hispanic) in 1980: Self-esteem in adolescence (i.e., tenth grade) was significant in socioeconomic achievement (i.e., educational attainment, annual income, occupation status) for only adult men (participants' average age was 28).

Parental involvement in adolescence impacts later socioeconomic status by gender. Song et al. (2004) also reported parental educational involvement as a significant predictor only among women but not men, but there was no further information about gender difference in parental involvement effect on college major with disaggregated data. However, this result is also similar to the study of Mahaffy (2004): Women were more closely supervised than men by their parents about pursuing education and careers. Parents' general supervision and monitoring school work positively influences higher education and occupation status for only women, but not for men. There was no influence between parental supervision and monitoring school work on annual income for both women and men.

With respect to gender difference in academic achievement and attainment among Southeast Asian immigrant boys and girls, studies reported that girls are more outstanding than counterpart boys and/or other ethnic boys and girls in academic achievement, good attitudes, and/or attainment. Recent census data also support the phenomenon: Southeast Asian female greatly increase participation in higher education. The rate of increase in annual income for the last 6 years varied: Laotian females' median annual income passed counterpart males', but the Cambodian, Hmong, and Vietnamese gender gap endured or enlarged.

### **Summary.**

Studies on Southeast Asian immigrants in the U.S. can be summarized as follows:

First, studies have reported that the parents' acculturation in English proficiency and cultural beliefs are related to parental involvement in their children's schools. This is also related to parent-child conflicts caused by cultural and linguistic discrepancy between parents and their children, which is an important determinant to adolescents' self-esteem. Second, Southeast Asian immigrant adolescents' high academic achievement is attributable to parental involvement that is focused on academic achievement and attainment at home and to parents' acculturation. Third, when it comes to high-achieving Southeast Asian American adolescents with low self-esteem, studies' outcomes are inconsistent and there are few within-group studies to examine the relationship between self-esteem and academic achievement/attainment. Fourth, regarding gender difference, parent-child conflict is stronger for girls than for boys because the cultural discrepancy is stronger between parents and daughter than between parents and sons. This fact makes difference in boys' and girls' self-esteem along with their quality of relationship with their parents and the degree of parents' influence on their self-esteem. Finally, recently Southeast Asian American females outperformed in education achievement/attainment through high school and college and more females participated in education and careers.

### **Chapter 3. Methodology**

#### **Data**

Secondary public data was used for this study. The data comes from three waves of the Children of Immigrants Longitudinal Study (CILS, Portes & Rumbaut, 2005), a ten-year panel study of adaptation processes of immigrant children across ethnicity from early adolescence to early adulthood. The first wave of the CILS targeted 14-year-old adolescents (on average; or eighth or ninth grade middle school students) who were born in the U.S. or immigrated before the age of five. Responses from 5,262 students were collected from forty-nine schools in the metropolitan areas of Miami/Ft. Lauderdale, Florida, and San Diego, California. These were two main entry settlements for immigrants during the first wave of data collection in 1992-1993. The second wave data were collected in 1995-1996, three years after the first survey, from 4,288 students, or 81.5 percent of the first group. During the second wave data collecting period, participants' parents were interviewed. Fifty percent, or 2,442 parents of the adolescents who participated during the second wave data collection time were interviewed. The third wave data collection was conducted in 2001-2003, when the participant children reached an average age of 24. In the third wave, 3,618 participant children or 68.9 percent of the first wave participated.

A specific aim of this study was to test a model of Southeast Asian immigrant adolescents' long-term SES achievement. The CILS data achieves the aim uniquely in that it is longitudinal data, was collected using rigorous sampling methods and includes the variables of interest to this study. The data contain variables that enable study of interactions between the Southeast Asian immigrant children's individual attributes and

family processes in their adolescence and the outcome of their SES achievement in their adulthood.

### **Sampling**

This study used a subsample which consists of Southeast Asian immigrant adolescents including Hmong, Laotian, Cambodian, and Vietnamese. The number of adolescents who identified themselves as a Southeast Asian in wave 1 was 437. The number of adolescents whose parents were interviewed in wave 2 data collection and who participated in wave 3 data collection as young adults was 237 out of 437. Those interviews from adolescents' uncle (n=6) and grandmother (n=1) were excluded and the sample size reduced to 230. One case in which highest education level is not clear (labeled "others") was excluded. Final sample size for analysis was 229.

Demographic characteristics of the subsample are reported in Table 2. Participants' gender is 50.2 percent (115 boys) to 49.8 percent (114 girls) for the adolescents and 59 percent (135 fathers) to 41 percent (94 mothers) for the parents. More than three quarters (80.8 percent) of the parents' highest educational level is high school or less. At wave 3, the majority of young adults' highest educational achievement was some college (43.1percent) or a bachelor degree (27.4 percent). Average monthly gross income that the parents reported in wave 2 was \$1,094 (SD= \$1881, range \$0-\$ 9,000) while young adults reported higher (M=\$ 1,896 SD=\$1,576, range \$ 200-\$14,000) in wave 3. According to 2010 US Census data, 69 percent of the Southeast Asian population was Vietnamese but Vietnamese for this study was under represented (47.2 percent). 201 adolescents (or 87.8 percent) were born in their countries of origins and then immigrated to U.S. (i.e., foreign-born 1.5 generation).

Table 2

*Demographic Characteristics of Parents and Young Adults (N = 229)*

Characteristic	Parents (Wave 2)			Young Adults (Wave 3)		
	Mean	SD	percent	Mean	SD	percent
Gender			59 (Male)			50.2 (Male)
Age				24.3	.90	
Education						
High school or less			80.8 (80.6*)			27.8
College			14.3 (11.5*)			43.1
(no Bachelor's degree)						
Bachelors			4.8 (5.2*)			27.4
Graduate work or degree			0.9 (2.6*)			1.7
Monthly Gross Income (\$)	1,094	1,881		1,896	1,576	
National Origins						
Vietnam						47.2
Laos						29.7
Cambodia						17.5
Hmong						5.7

*Note.* \* indicates spouse's highest education level.

Table 3 displays the ranges, means, standard deviations in the parentheses and number of missing observations for each indicators. Parents with boys reported significantly higher English proficiency than parents with girls ( $p < .05$ ). Three variables of parental involvement were a little higher in girls group than in boys group but there was no gender difference in those parental involvement variables. The parents-child conflict indicators (i.e., *intergenerational conflict* and *intercultural conflict*) showed group mean differences but there were no statistical significance. Girls had higher education than boys but boys had higher annual income than girls. There were no gender difference in highest education and annual income. There was no gender difference in self-esteem but a significant difference in depression in adolescence: Girls reported higher depression than boys.



Table 3

*Range, Mean (SD), Numbers of Missing Observations for Each Indicators (N=229)*

Variable	Range	Mean (SD)			Number of missing (percent)
		Overall	Boys	Girls	
1 Fathers' English Proficiency <sup>*</sup>	1-4	2.1 (0.8)	2.1 (0.6)	2.0 (0.5)	1 (0.4)
2 Mothers' English Proficiency <sup>*</sup>	1-4	2.1 (0.9)	2.1 (0.6)	1.8 (0.5)	39 (17)
3 Parental Social Involvement	2-4	3.3 (0.8)	3.3 (0.8)	3.4 (0.8)	46 (20.1)
4 Parental School Involvement	3-6	4.2 (0.9)	4.1 (0.9)	4.3 (0.8)	2 (0.9)
5 Parental Home Involvement	3-12	8.3 (1.8)	8.2 (1.9)	8.5 (1.7)	3 (1.3)
6 Intergenerational Conflict	4-16	7.9 (2.6)	7.8 (2.6)	8.1 (2.6)	1 (0.4)
7 Intercultural conflict	1-3	1.7 (0.9)	1.6 (0.8)	1.5 (0.8)	1 (0.4)
8 Adolescents' Self-esteem	1-4	3.2 (0.5)	3.2 (0.5)	3.2 (0.5)	2 (0.9)
9 Highest Education	1-9	4.1 (1.7)	3.9(1.6)	4.2 (1.8)	6 (2.6)
10 Annual Income	1-11	6.3 (2.9)	6.5 (2.6)	5.9 (2.7)	45 (19.7)
11 Interviewed Parent's Gender <sup>a</sup>	1-2	-	-	-	0 (0)
12 Parents' SES Index <sup>a</sup>	-1.7-1.7	-0.60 (.86)	-0.5(0.8)	-0.6(0.9)	0 (0)
13 Adolescent's Gender <sup>a</sup>	1-2	-	-	-	0 (0)
14 Adolescents' depression <sup>a*</sup>	1-4	1.6 (0.6)	1.5 (0.6)	1.7 (0.5)	2 (0.9)

*Note.* SD = Standard deviation.

<sup>a</sup> indicates control variables.

<sup>\*</sup>  $p < .05$  in gender difference.

## Analysis Plan

### Missing data treatment.

Although listwise (i.e., deletion of a case that has a missing observation in one of independent or dependent variables) and pairwise (i.e., deletion of a case that has a missing observation in at least one of independent or dependent variables paired) methods are classical methods to deal with missing observations, those methods may have some disadvantages. First, they can lead to biased estimates because they simply exclude missing cases. The listwise and pairwise methods are based on the mechanism of missing completely at random (MCAR), in which missing data is assumed not to be

related at all to other variables. Yet, this assumption is not realistic, particularly in survey data regarding the social and behavior sciences (Kline, 2011). Therefore, simply excluding missing cases can lead estimates to be biased. Second, listwise and pairwise methods can lose largely missing observations that the sample sizes decrease dramatically (Schumacker & Lomax, 2004). For this reason, when there was a relatively large number of missing observations in the data, the listwise or the pairwise method was not recommended.

In order to avoid biased estimates and reduced sample sizes by listwise and pairwise, alternative methods to treat missing observations have been used especially in Structural Equation Modeling (SEM) procedures (Kline, 2011; Schumacker & Lomax, 2004). The alternative methods are the expectation-maximization (EM) algorithm or the Maximum Likelihood Estimation, the availability of which depend on SEM software. Those methods impute and multiply missing observations to values that are regressed on observed variables and that are expected on maximum likelihood estimations for each case (Kline, 2011; Schumacker et al., 2004). The methods assume that missing data are based on a missing at random mechanism (MAR) in which missing data are related to other variables.

Table 3 displays missing data cases in each variable. Among 229 cases, seven of ten measured variables (i.e., *fathers' English proficiency*, *parental school involvement*, *parental home involvement*, *intergenerational conflict*, *intercultural conflict*, *Self-Esteem*, and *highest education*) included for the study had missing values from 1 to 6, which are relatively small missing data. However, three variables—*mothers' English proficiency*, *parental social involvement* from parent participants, and *annual income* from young

adult participants—had relatively large amount of missing data (39, 46, and 45, respectively). An EM algorithm method was used, operated by Lisrel SEM software.

### **Analysis method.**

Using Lisrel 8.80 - Prelis 2.8 for Windows (Scientific Software International, Inc.) the primary data analysis method was Structural Equation Modeling (SEM) procedures. The study has the eight hypothesized paths and one hypothesis of gender group difference—eight paths represent relationships between two variables (i.e., direct effect). The relationships include the followings: (a) positive effect of parents' acculturation on parental involvement and on adolescents' SES achievement in adulthood and negative effect on parent–child conflict (b) negative effect of parental involvement on parent–child conflict and positive effect on adolescents' self-esteem and on SES achievement (c) negative effect of parent–child conflict on adolescents' self-esteem (d) positive effect of adolescents' self-esteem on SES achievement.

SEM procedures are used to systematically test theories in the social and behavioral sciences (Anderson, 1987). The SEM procedures are often used in testing conceptual models that includes a series of relationships among variables (Byrne, 2010; Hoe, 2008). SEM method is appropriate for the study because the primary procedure of this study is to test the conceptual model composed of eight hypothesized paths and to examine gender differences on the paths.

The variables connected with a series of relationships are not obtained from the data but from the conceptual constructs, which are called latent variables. There are two different kinds of latent variables: exogenous latent variables are similar with independent variables in multivariate regression methods that cause to change other

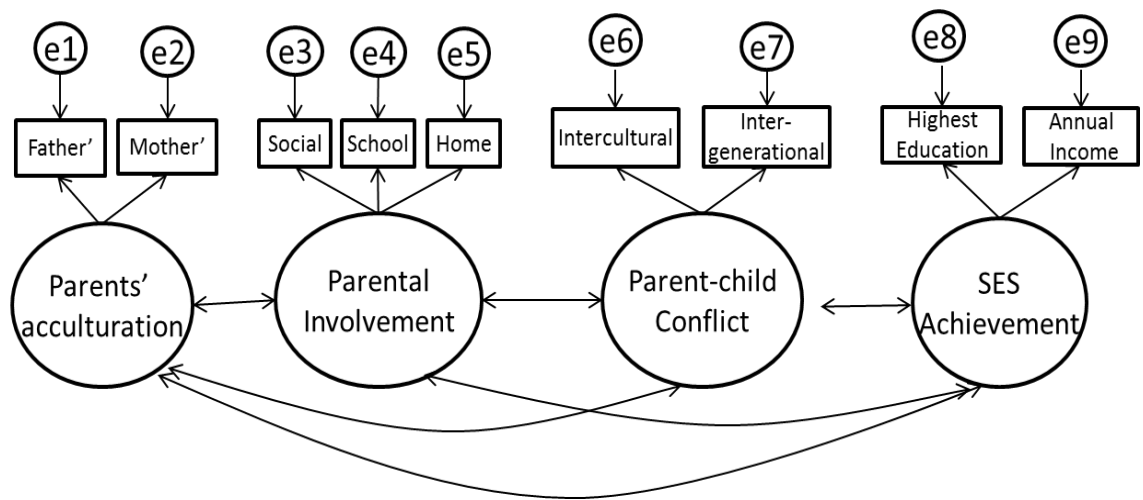
variables. Endogenous latent variables are similar with dependent variables, which are known as direct or indirect effects caused by exogenous variables (Byrne, 2010; Maruyama, 1998). The series of relationships among latent variables are called the structural model (Kline, 2011; Maruyama, 1998). In this study, an exogenous latent variable is the parents' acculturation variable and endogenous latent variables are parental involvement, parents-child conflict, adolescents' self-esteem, and adolescents' SES achievement.

The latent variables are represented by variables that are measured and obtained from the data, which are called indicators or observed variables. The relationships between the latent variables and the indicators are called a measurement model. In other words, a structural model means a series of relationships among latent variables while a measurement model means relationships between each latent variable and its indicators or observed variables.

When models are tested, usually measurement models are tested first and then structural models are tested. This is known as two-step modeling (Kline, 2011). Accordingly, in the study, the measurement model will be tested first to examine whether the measures represent each latent variable substantially. If it does then the structural model will be tested to determine whether or not the model fits to the data and then examining the hypothesized paths if the relationships are significant.

Figure 3 depicts the measurement model for the study. The study consists of four latent variables; one exogenous latent variable (i.e., parents' acculturation) and three endogenous latent variables (i.e., parental involvement, parent-child conflict, and adolescent' SES achievement in adulthood). In addition, the study consists of nine

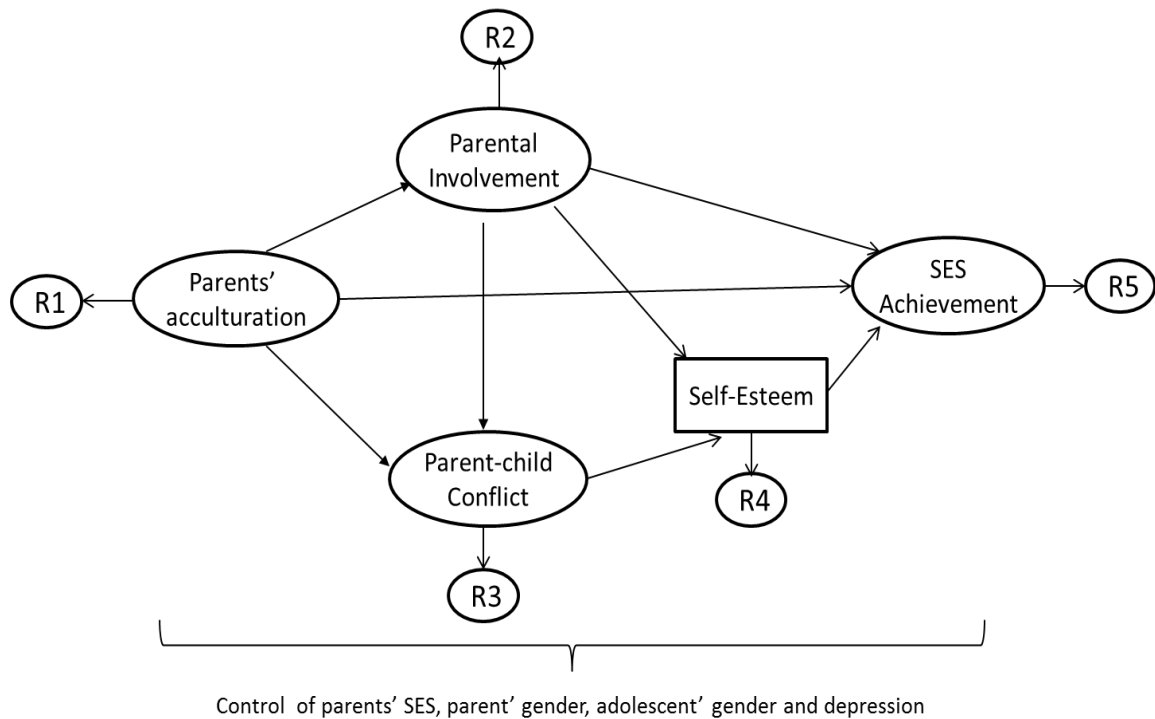
indicators to measure the latent variables. These include *father's English proficiency*, *mother's English proficiency*, *social involvement*, *school involvement*, *home involvement*, *intergenerational conflict*, *intercultural conflict*, *highest education*, and *annual income*. Each indicator belongs to a latent variable (e.g., *social involvement* is one of constructs of parental involvement). e1 to e9 means nine unstandardized residuals of measures that indicate measurement error terms (Byrne, 1998). *Self-esteem* has the only indicator in which measurement error of the indicator is not taken into account, which implies that the self-esteem variable does not need to put in the measurement model to test.



*Figure 3.* Measurement model of Southeast Asian immigrant adolescents' long-term SES achievement. Observed variables or indicators in rectangles. Latent variables in circles. e1 to e9 indicates unstandardized residuals of measures. Two arrowheads indicate correlations between two latent variables.

Figure 4 depicts the structural model for the study. The model is a recursive model in which the relationships are all unidirectional without any reciprocal relationship (Kline, 2011) because the purpose of this study is to investigate parents or family effects

on immigrant adolescents' long-term adaptation rather than mutual effects between immigrant parents and their adolescent children on the children's adaptation. In the structural model, there are eight relationships between two latent variables (e.g., between parental involvement and parents' acculturation or between SES achievement and parental involvement). Residuals of endogenous latent variables are indicated by R1 for parents' acculturation, R2 for parental involvement, R3 for parent-child conflict, R4 for adolescents' self-esteem, and R5 for adolescents' SES achievement. Residuals of endogenous latent variables mean the portion of the latent dependent variable that is not explained or predicted by the latent independent variable (Schumacker et al., 2004). Adolescents' self-esteem (R4) is designated zero residual because the variable has only one indicator assumed perfect reliability. Parents' SES, gender of parents and adolescents, and adolescents' depression are controlled in the structural model.



*Figure 4.* Structural model of Southeast Asian immigrant adolescents' long-term SES achievement. Latent variables in ovals. R1 to R5 indicates residuals.

The SEM methods should fulfill assumptions about the data. First, the data meet the assumption that variables are normally distributed. To examine normality of each variable for the study, Skewness and Kurtosis indices were used (Kline, 2011; Byrne, 2010). An acceptable Skewness index is between +3.0 and -3.0 and acceptable Kurtosis index is between +8.0 and -8.0 for normal distribution (Kline, 2011). Skewness and Kurtosis indices for each indicator displayed in table 4. Although some variables were negatively skewed or positively skewed (e.g., adolescents' self-esteem was negatively skewed but adolescents' depression was positively skewed) no extremely skewed variables existed (see Table 4). Second, the data meet non multicollinearity among indicators that refers to high correlation coefficient values, which can make the parameter

estimates unstable (Kline, 2011; Maruyama, 1998). The Pearson correlation coefficient matrix presented in table 4 reveals that there is no correlation value that is too high (i.e., greater than .80 or .90).

To compare the structural model from different gender groups, analysis for multiple-sample comparisons is conducted. Comparisons across samples are conducted fitting the exact same conceptual model with data from different samples (Maruyama, 1997). Therefore, in this study, when testing the structural model with boys' and girls' sample, a control variable of adolescents' gender was removed from the original structural model leaving the remaining control variables and all structural relationships. Correlation matrices with standard deviations were used for the analysis for multiple-group comparisons (see Table 5 for boys and Table 6 for girls).

To determine the overall fit of the measurement model and the structural model to the data, this study was used the commonly applied fit indices as follows, which reflects fit indices provided by LISREL software: the chi-square statistic with 90 percent confidence interval and degree of freedom, the Comparative Fit Index (CFI), Goodness of Fit Index (GFI), the Root Mean Square Error of Approximation (RMSEA), and the Standard Root Mean Square Residual (SRMR). The null hypothesis for the measurement model and the structural model is that the models fit to the data. When the chi-square p-value is greater than the significant level of .05, the null hypotheses would be accepted. However, because chi-square values are too sensitive to sample size to evaluate model fit alone other fit indices should be considered. Although there have been many debates regarding which fit indices to examine in evaluating model fit there is a consensus on RMSEA and the chi-square statistic as important fit indices (e.g., Hoe, 2008). RMSEA is



obtained from chi-square values, sample size, and the model degrees of freedom, which makes the chi-square value sensitive to the number of parameters of the model and sample size (Kline, 2011; Hooper, Coughlan, & Mullen, 2008). An acceptable threshold for RMSEA is .08 (Hoe, 2008) and  $\leq .05$  indicates good-fit while  $\text{RMSEA} \geq .10$  indicates poor-fit. SRMR is obtained from the covariance matrixes that are expected and observed. If the difference between the two covariance matrixes is zero, model fit would be perfect. For acceptable model fit SRMR should less than .08 (Hu & Bentler, 1999). CFI is obtained from the chi-square value of the model and a baseline model. This makes CFI to be a relative fit index to explain the model compared to a baseline model with bad-fit (Maruyama, 1998). An acceptable threshold for CFI is more than .90 (Hoe, 2008; Hooper et al., 2008). GFI is obtained the residual and total variances and covariances. If the residual and total variances and covariances are exactly same, GFI is zero indicating worst fit but if the variance and covariance of the residual are much smaller than those of the total, GFI is close to one indicating good (Kline, 2011; Maruyama, 1998). An acceptable threshold for GFI is more than .90 (Hoe, 2008; Hooper et al., 2008; Bentler & Bonett, 1980).

In order to obtain substantial statistical power, sample size and statistical power computed should be considered. Usually, 5 to 10 cases per indicator are required for sound SEM analysis (Bentler & Chou, 1987). The sample size of this study is 229 and the number of the observed indicators is ten including the self-esteem measure. Therefore, based on Bentler et al. (1987)'s requirement, the sample size of this study is large enough. Anderson and Gerbing (1988) argued that a sample size of 150 or more would be enough to estimate sound parameters. Second, statistical power obtained using the formula that

MacCallum, Browne, & Sugawara (1996) suggested. MacCallum et al. (1996) insisted that when the power would be more than .80, it is evidence that there is relatively low probability to occur Type II error where the false null hypothesis is accepted. Using SAS 9.2 program, the power estimate was .881 for the conceptual model at the significant level of .05 (degrees of freedom = 59; sample size = 229). Based on the power estimate, the conceptual model proposed in this study has relatively low probability to occur Type II error.

## **Measures**

Figure 3 indicates measures that represent each latent variable. The correlation coefficient values are reported in Table 4.

### **Exogenous latent variable.**

In the model, parents' acculturation is the exogenous latent variable that may lead the values of other variables - including parental involvement, parent-child conflict, adolescents' self-esteem, and later SES achievement-to change. The latent variable of parents' acculturation represented by the indicators of parent' English proficiency and partner's English proficiency in understanding measured in wave 2. The parents interviewed were asked, "How well do you understand English?" and "How well does your partner understand English?" *Fathers' and mothers' acculturation* were counted along with the interviewed parents' gender.

### **Endogenous latent variables.**

In the model, parental involvement, parent-child conflict, children's self-esteem, and long-term SES achievement are the endogenous latent variables. The parental involvement latent variable is represented by the indicators of *social involvement*, *school*

*involvement*, and *home involvement*. The parents were asked two questions about *social involvement*: “Do you know the first name or nickname of any of (child’s name) close friends/ the parents of any of these children?” The responses were coded as 1 (no) or 2 (yes). The scores range from 2 to 4. The parents were asked three questions about *school involvement*: “Do you and your spouse/partner do any of the following at your child’s school? Belong to a parent-teacher organization/attend meetings of a parent-teacher organization/act as a volunteer in the school?” The responses were coded as 1 (no) or 2 (yes). The scores range from 3 to 6. The parents were asked three questions about *home involvement*, “How often do you or your spouse/partner talk with your child about his or her experiences in school/education plans?” and “How often do you or your spouse/partner help your child with his or her homework?” The responses were coded on a 4-point scale, from 1(not at all) to 4 (regularly). The scores range from 3 to 12. Cronbach’s Alphas were .723 for *social involvement*, .561 for *school involvement*, and .833 for *home involvement*.

The parent–child conflict latent variable is represented by the indicators of *intergenerational* and *intercultural conflict* between the parents and the children in wave 2. *Intergenerational conflict* is composed of emotional distance or opposite interactions (Roosa et al., 1990). In the data the adolescents were asked to respond to four statements about the relationship with their parents: “I get in trouble because my way of doing things is different from that of my parents,” “My parents and I often argue because we don’t share the same goals,” “My parents do not like me much.” “My parents are usually not very interested in what I way.” The responses were coded on a 4-point scale, 1 (not true at all), 2 (not very true), 3 (partly true), and 4 (very true). The scores range from 4 to 16.

Cronbach's Alpha of *intergenerational conflict* was .714. On the other hand, *intercultural conflict* is composed of cultural discrepancy (Lee, 2000; Lee et al., 2000). In the data the adolescents were asked to respond to one statement about their embarrassing experiences by their parents; "Linda and Luis are both students whose parents are foreign born. Linda says: "I am sometimes embarrassed because my parents don't know American ways. Luis says: "I am never embarrassed by my parents, I like the way they do things. Which one comes closed to how you feel?" The responses were coded on a 3-point scale, 1 (Linda, sometimes embarrassed), 2 (Luis, never embarrassed), and 3 (neither, neutral). The code was reversed; 1 (never embarrassed), 2 (neutral), and 3 (sometimes embarrassed).

The latent variable of the adolescents' self-esteem is represented by the Rosenberg's Self-Esteem Scale (Rosenberg, 1965). Using a 4-point scale ranging from 1 (agree a lot) to 4 (disagree a lot), respondents were asked to respond to ten statements, including "I am a person of worth" and "I have a number of good qualities." The study will use already computed variables of *Self-esteem in 1995-1996* by the principal investigators of Portes, A. and Rumbaut, R. G. (codebook of CILS 1991-2006).

The latent variable of long-term SES achievement is represented by the indicators of *educational attainment* and *annual income* in wave 3. The respondents were asked about their school graduation, "What is the highest grade or year of school you have completed?" The respondents were asked to mark one of ten choices (1=Some high school or Grade 9-12 no diploma, 2=Graduated from high school, 3=1 or 2 years of Post-high school Vocational Training/college, 4=Graduated 2-Year-college/Vocational School or associated degree, 5=3 or more years of college, no degree yet, 6=Graduated from 4/5-

year-college, 7=Some graduate school, no degree yet, 8=Master's degree, 9=Professional/doctoral degree, JD, MD, DDS, Ph.D., 10=Other). There is no respondent who chose 10. In addition, the respondents were asked to mark annual income that had the range from 1 to 12 (1=less \$ 5,000, 2= \$ 5,000-\$ 9,999, 3= \$ 10,000-\$14,999, 4= \$15,000-19,999, 5=20,000-24,999, 6=25,000-29,999, 7=30,000-34,999, 8=35,000-49,999, 9=50,000-74,999, 10=75,000-\$99,000, 11=\$100,000-\$199,999, 12=\$200,000).

### **Control variables.**

Parents' SES and gender of interviewed parents and adolescents were controlled in the model. Parents' SES index is calculated from parents' education level and parents' occupation prestige by the principal investigators, Portes, A. and Rumbaut, R. G. (codebook of CILS 1991-2006). Parents' SES effect was controlled on parents' acculturation, parental involvement, and adolescents' SES achievement. Studies reported positive relationships between parents' SES and parents' acculturation (e.g., Anderson et al., 1993), parental involvement and their children's SES achievement (e.g., Teranishi, 2010). Interviewed parents' gender was controlled on parental involvement. Adolescents' gender was controlled on Parent-child conflict, self-esteem, and SES achievement. Gender is coded 1 (male) or 2 (female).

Adolescents' depression is controlled on parents-child conflict and adolescents' self-esteem. Sheeber, Hops, and Davis (2001) reported positive relationships between adverse family processes and adolescents' depression. Studies on Asian immigrant adolescents' depression reported that parents-child conflict was one of fundamental predictors to the adolescents' depression (e.g., Cho & Bae, 2005). Studies reported strong

negative relationships between adolescents' depression and their self-esteem (e.g., Orth, Robins, & Roberts, 2008).

The control variable of the adolescents' depression is represented by the indicator of Center for Epidemiological Studies – Depression Scale (CES-D; Radloff, 1977), which consists of four questions. Using a 4-point scale ranging from 1 (rarely) to 4 (most of the time), respondents were asked to rate four statements, including “I felt sad last week” and “I couldn’t get going last week.” The study will use already computed variables of Depression in *1995-1996* by the principal investigators of Portes, A. and Rumbaut, R. G. (codebook of CILS 1991-2006).

Table 4

*Correlations, Skewness Index, and Kurtosis Index for Each Indicators (N=229)*

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	Fathers' English Proficiency	-											
2	Mothers' English Proficiency	.65**	-										
3	Parental Social Involvement	.14*	.17*	-									
4	Parental School Involvement	.07	.02	.23**	-								
5	Parental Home Involvement	.25**	.28**	.45**	.09	-							
6	Intergenerational Conflict	-.06	-.04	-.12	-.06	-.16*	-						
7	Intercultural conflict	.03	.00	-.01	-.04	-.04	.29**	-					
8	Adolescents' Self-esteem	.02	.05	.05	.13*	.09	-.40**	-.05	-				
9	Highest Education	.29**	.25**	.07	.01	.11	-.06	-.07	.14*	-			
10	Annual Income	.26**	.26**	-.04	-.18*	.02	.06	-.05	.07	.29**	-		
11	Parents' SES	.49**	.55**	.11*	-.09	.22**	-.017	-.04	-.03	.31**	.27**	-	
12	Adolescents' depression	-.04	-.04	-.04	-.10	-.09	.44**	.23*	-.36**	-.01	.06	-.01	-
	Skewness Index	.22	.43	-.28	.43	-.63	.68	.94	-.18	-.05	-.10	.40	.82
	Kurtosis Index	-.65	-.66	.11	-.36	-1.09	.09	-.77	-.91	-1.25	-.93	-.75	.21

\*  $p < .05$ , \*\*  $p < .01$

Table 5

*Correlations for Boys Subgroup (N=115)*

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	Fathers' English Proficiency	-											
2	Mothers' English Proficiency	.62**	-										
3	Parental Social Involvement	.09	.19*	-									
4	Parental School Involvement	.16	.06	.14	-								
5	Parental Home Involvement	.08	.18	.49**	.22*	-							
6	Intergenerational Conflict	.02	.02	-.26**	-.09	-.09	-						
7	Intercultural conflict	.02	-.03	-.16	-.11	-.03	.32**	-					
8	Adolescents' Self-esteem	-.08	.05	.14	.11	.08	-.40**	-.09	-				
9	Highest Education	.27**	.23*	.20*	.03	.10	-.06	-.07	.08	-			
10	Annual Income	.24**	.21*	.01	-.14	.02	.27*	.01	-.10	.11	-		
11	Parents' SES	.39**	.41**	.17	.02	.10	-.04	-.14	-.14	.36**	.13	-	
12	Adolescents' depression	-.03	-.11	-.16	-.17	-.02	.45**	.23**	-.45**	-.06	.11	-.04	-
	Standard Deviation	.78	.85	.76	.91	1.93	2.56	.81	.47	1.65	2.56	.80	.57

\*  $p < .05$ , \*\*  $p < .01$



Table 6

*Correlations for Girls Subgroup (N=114)*

	Variable	1	2	3	4	5	6	7	8	9	10	11	12
1	Fathers' English Proficiency	-											
2	Mothers' English Proficiency	.68**	-										
3	Parental Social Involvement	.39**	.37**	-									
4	Parental School Involvement	-.02	-.01	.03	-								
5	Parental Home Involvement	.22*	.17	.40**	.22*	-							
6	Intergenerational Conflict	-.13*	-.09	-.06	-.04	-.17	-						
7	Intercultural conflict	.04	.04	.08	.04	.03	.28**	-					
8	Adolescents' Self-esteem	.10	.05	.05	.17	.02	-.39**	-.01	-				
9	Highest Education	.31**	.28**	.02	-.02	.03	-.07	-.06	.21*	-			
10	Annual Income	.27**	.30**	.03	-.21*	-.09	-.14	-.12	.21*	.48**	-		
11	Parents' SES	.56**	.67**	.27**	-.18*	.14*	.03	.05	.05	.29**	.38**	-	
12	Adolescents' depression	-.04	.04	-.02	-.05	-.09	.44**	.25**	-.25**	.01	-.01	.04	-
	Standard Deviation	.78	.85	1.93	.91	.76	2.56	.81	.47	1.65	2.56	.80	.57

\*  $p < .05$ , \*\*  $p < .01$

## **Chapter 4. Results**

This study investigated a conceptual model of Southeast Asian immigrant adolescents' long-term SES achievement. For the purpose of testing the model, the Structural Equation Modeling method was used. The two-step modeling of the Structural Equation Modeling method was adopted for this study because the measurement model and the structural model are different. First, the measurement model results will be addressed. The section will begin with the parameter estimates examined and whether any unrealistic estimates exist. Then model fits will be examined, which includes investigating whether the relationships between the latent variables and each indicator are substantial. Second, the structural model results will be addressed. As in the previous section, this section will begin with the parameter estimates and then examine model fits. This section includes examining the eight hypothesized paths. In addition, as addressed in Chapter 3, studies on Southeast Asian immigrant parents and their adolescent children have reported the gendered pattern on adolescents' development. For this reason, gender differences were examined in the paths of the structural model with regard to different patterns in parameters by adolescents' gender.

### **Measurement Model**

When the parameters in the model were estimated, a negative error variance was found, commonly known as Heywood cases where one or more unique variance estimate is non-positive (Byrne, 1998; Gerbing & Anderson, 1987). The negative error variance, -1.76, occurred in the indicator of the *intergenerational conflict*. According to Bentler and Chou (1987), variances that are estimated as negative or zero are not only meaningless but they are also inappropriate within the context of SEM because the Maximum

Likelihood estimation method does not allow for negative variances. Several approaches have been suggested as ways to address the negative variance estimate. One approach is to rectify the negative error variance estimate as constrained at zero and re-estimate the model (Bentler et al., 1987; Gerbing et al., 1987). This approach is, however, not consistent with the commonsense belief that virtually all empirical data have some random error (Gerbing et al., 1987). A second approach is to constrain the negative error variance estimate to some arbitrarily small positive value. This approach is consistent with the belief that all empirical data have some random error. An alternative to this second approach is to fix the negative error variance estimate at the value of the smallest positive estimate found for the remaining measurement errors in the model. In this study, the first approach is used instead of the second approach because only when the error variance of *intergenerational conflict* was constrained at zero the negative variance estimate changed to positive. The parameters of the model with the fixed error variance were re-estimated. By doing so, some of the parameter estimates changed a little and some of parameter estimates remained the same. For example, parameter estimates of *fathers' and mothers' English proficiency* and *home, social, and school involvement* did not change before and after treatment while the error variances of *highest education* and *annual income* did change slightly from .72 to .71 and from .69 to .70, respectively. In addition, the chi-square statistic and RMSEA changed slightly while the other indices remained almost same: Before the treatment, the measurement model showed that the chi-square statistic ( $\chi^2$ ) was 24.83 ( $df = 21$ ,  $p\text{-value} < 0.25$ ). RMSEA was equal to .028 [0–.065]. After the treatment, the chi-square statistic ( $\chi^2$ ) was 24.95 ( $df = 22$ ,  $p\text{-value} < 0.30$ ) and RMSEA was equal to .024 [0–.062].

Table 7

*Maximum Likelihood Estimates for Measurement Model (N=229)*

Latent Variable & Indicators	Coefficients (Factor Loadings)			Errors	$R^2$
	Unst.	SE	St.	St.	
Parents' Acculturation					
Fathers' English Proficiency	1.0 <sup>a</sup>	—	.81	.34	.66
Mothers' English Proficiency	.99***	.13	.80	.36	.64
Parental Involvement					
Social Involvement	.85***	.20	.72	.48	.52
School Involvement	.29*	.12	.21	.95	.05
Home Involvement	1.0 <sup>a</sup>	—	.62	.62	.38
Parents-child Conflict					
Intergenerational conflict	1.0 <sup>a</sup>	0 <sup>b</sup>	1.0	0	1.0
Intercultural conflict	.29***	.06	.29	.91	.09
Adolescents' SES Achievement					
Highest Education	.98***	.26	.53	.71	.29
Annual Income	1.0 <sup>a</sup>	.28	.55	.70	.30

*Note.* Unst. = unstandardized; SE. = standard error; St. = standardized.

<sup>a</sup> Reference indicator's coefficient fixed to 1.00. <sup>b</sup> SE fixed to zero.

\*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Table 7 displays unstandardized coefficients (Unst.), standard error (SE), standardized coefficients (St.), measurement error, and squared multiple correlations ( $R^2$ ) for the measurement model. SEM method designates one of the indicators for each latent variable as a reference indicator for those coefficients that are usually fixed at 1, which estimates unstandardized coefficients. This makes it easier to interpret other indicators for each latent variable in relation to its unit of measurement where the quality of other indicators is able to be evaluated against the reference indicators (Schumacker et al., 2004; Maruyama, 1998). That is, it is interpreted that indicators with coefficients that are

larger than one would be better than a reference indicator to represent a latent variable while a reference indicator would be better than indicators with coefficients that are less than one. For example, for this study, *home involvement* was defined as a reference indicator for the *parental involvement* latent variable. The unstandardized coefficients of *social involvement* and *school involvement* were .85 and .29, respectively. Based on the coefficients, *home involvement* (i.e., 1.0 in the unstandardized coefficient) is the best indicator to represent the *parental involvement* latent variable and the next is *social involvement* (i.e., .85 in the unstandardized coefficient). Reference indicators were not significantly tested with standard error (Kline, 2011).

All indicators were statistically significant. The unstandardized coefficients of *fathers' English proficiency*, *mothers' English proficiency*, *social involvement*, *intercultural conflict*, and *highest education* were significant at the level of .001 and *school involvement* was significant at the level of .05, which means that all indicators were substantial for the measurement model (Byrne, 1998). Standard errors ranged from .06 to .28. The standard error of *intergenerational conflict* was fixed to zero to treat the Heywood case. Although there is no absolute range of standard error recommended, either too small (close to zero) or too large (close to 1) is regarded as an extreme standard error in SEM (Byrne, 1998). The standard error of *intercultural conflict* was relatively smaller than those of the other indicators. Fixing *intergenerational conflict* to zero led the standard error of *intercultural conflict* to change from .38 to .06.

Squared multiple correlations ( $R^2$ ) ranged from .29 to .66 except for *school involvement* and *intercultural conflict*. The  $R^2$  of *school involvement* and *intercultural conflict* was relatively low (.05 and .09, respectively). Those values of  $R^2$  and coefficients

indicate that *social* and *home involvement* better represent the latent variable of *parental involvement* than does *school involvement*. Additionally, *intergenerational conflict* better represents the latent variable of *parent-child conflict* as compared to *intercultural conflict*.

To evaluate the fit of the model to the data, this study used the following fit indices: the chi-square statistic, the Root Mean Square Error of Approximation (RMSEA), the Standard Root Mean Square Residual (SRMR), the Comparative Fit Index (CFI), and the Goodness of Fit Index (GFI). The chi-square statistic ( $\chi^2$ ) was 24.95 ( $df = 22$ ,  $p$ -value  $< 0.30$ ). RMSEA was equal to .024 [0–.062]. The chi-square statistic and the RMSEA did show that the hypothesized measurement model was fit to the data. In addition, SRMR was equal to .045. CFI was equal to .99. GFI was equal to .98. SRMR that is less than .08 is acceptable as a good fit index (Hu et al., 1999). If CFI is higher than .90 in real data (Hoe, 2008), the model is viewed as a close model fit to data. In addition, an acceptable threshold for GFI is more than .90 (Hoe, 2008; Hooper et al., 2008; Bentler et al., 1980). Examining the chi-square statistic and other fit indices, the measurement model showed a good fit to the data.

In summary, among the nine indicators, seven indicators were relatively good to represent each latent variable while two indicators, *school involvement* and *intercultural conflict*, were relatively weak in representing each latent variable. Nevertheless, the measurement model was an overall good fit to the data based on parameter estimates and fit indices: all indicators were statistically significant and all fit indices showed good fit indices including the chi-square statistic.

## Structural Model

Testing the structural model did not reveal extreme values in parameter estimates. Standard errors for the structural model ranged from .05 (relationship between *adolescents' self-esteem* and their long-term *SES achievement*) to .16 (relationship between *parent-child conflict* and *adolescents' self-esteem*). Among the eight hypothesized structural relationships, five relationships were statistically significant.

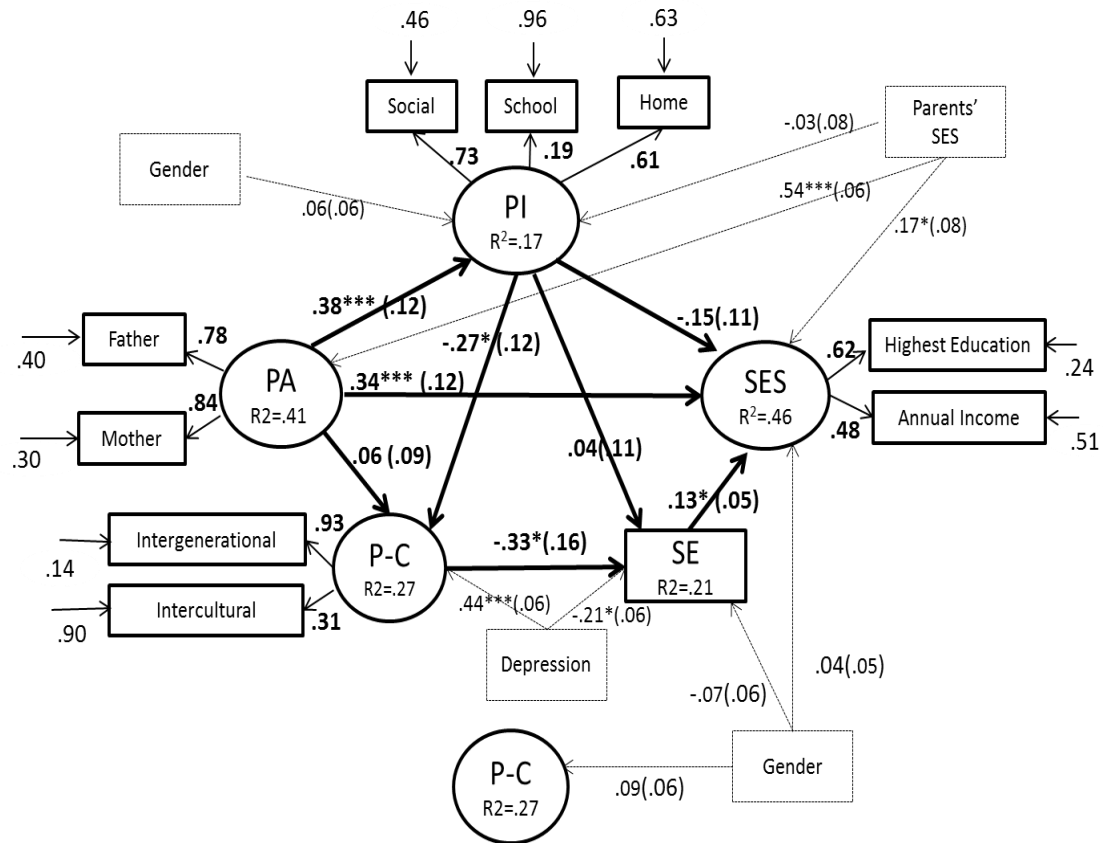


Figure 5. Standardized coefficients for model of Southeast Asian immigrant adolescents' long-term SES achievement. PA = Parents' Acculturation; PI = Parental Involvement; P-C = Parent-child Conflict; SE = Adolescents' Self-Esteem; SES = Adolescents' Socioeconomic Status Achievement. Control variables in dashed rectangles. Standard errors in parentheses.  $\chi^2 = 113.28$  ( $df = 60$ ,  $p < .0$ ), RMSEA = .06 [.042–.078], SRMR = .055, CFI = .91, GFI = .94. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Figure 5 displays results of the structural model test: standardized coefficients between each of the two latent variables and its significant levels including control variables, standard errors in parentheses, and  $R^2$ . Additionally, standardized coefficients and standard errors between indicators and corresponding latent variables are displayed for reference in Figure 5. The structural model's chi-square statistic ( $\chi^2$ ) was 113.28 ( $df = 60$ ,  $p\text{-value} < 0.00$ ). The chi-square statistic failed to accept the structural model as a good fit model. However, the chi-square statistic is overly susceptible to sample size, correlation size, or data distribution (Kline, 2011; Iacobucci, 2010; Schumacker et al., 2004). For this reason, it is strongly recommended that several model fit indices and parameter estimates are used to determine model fit in addition to the chi-square statistic (Schumacker et al., 2004).

RMSEA was equal to .06 [.042–.078]. The RMSEA did show that the conceptual structural model was fit to the data based on an acceptable threshold for moderate fit that is .08 or less (Hoe, 2008). In addition, SRMR was equal to .055. CFI was equal to .91. GFI was equal to .94. The model is viewed as a close model fit to data. Five out of eight hypothesized relationships were statistically significant at the significant level of .001 or .05 (see detail in the next section). In addition, those significant paths' magnitude and the directions were substantial. Accordingly, the structural model hypothesized was a good fit model to the data.

### **Hypothesized paths.**

As seen in Figure 5, Hypothesized path 1, 3, 4, 5, and 8 were supported by the data using the SEM method while path 2, 6, and 7 were not supported.



Path 1 proposed that *parents' acculturation will positively relate to parental involvement*. The path was statistically significant ( $\beta = .38, p < .001$ ). There is evidence that if parents' degree of acculturation is higher, then their parental involvement would also be higher; if parents' degree of acculturation is lower, then their parental involvement would also be lower.

Path 2 proposed that *parents' acculturation will negatively relate to parent-child conflict*. The path was not statistically significant ( $\beta = .06, p > .05$ ). There is no evidence of the negative relationship between parents' acculturation and parent-child conflict.

Path 3 proposed that *parental involvement will negatively relate to parent-child conflict*. The path was statistically significant ( $\beta = -.27, p < .05$ ). There is evidence that if parental involvement increases, then parent-child conflict will decrease but if parental involvement decreases then parent-child conflict will increase.

Path 4 proposed that *parent-child conflict will negatively relate to adolescents' self-esteem*. The path was statistically significant ( $\beta = -.33, p < .05$ ). There is evidence that if parent-child conflict decreases, then adolescents' self-esteem will increase but if parent-child conflict increases then adolescents' self-esteem will decrease.

Path 5 proposed that *adolescents' self-esteem in adolescence will positively relate to the adolescents' SES achievement in adulthood*. The path was statistically significant ( $\beta = .13, p < .05$ ). There is evidence that if adolescents have higher self-esteem in adolescence, then their SES achievement will be higher in adulthood but if adolescents have lower self-esteem, then their SES achievement will also be lower in adulthood.

Path 6 proposed that *parental involvement during adolescence will positively relate to adolescents' SES achievement in adulthood*. The path was not statistically significant ( $\beta = -.15, p > .05$ ). There is no evidence of the positive relationship between parental involvement and their children's SES achievement in adulthood.

Path 7 proposed that *parental involvement will positively relate to adolescents' self-esteem*. The path was not significant ( $\beta = .04, p > .05$ ). There is no evidence of the positive relationship between parental involvement and adolescents' self-esteem.

Path 8 proposed that *parents' acculturation will positively relate to adolescents' SES achievement in adulthood*. The path was statistically significant ( $\beta = .34, p < .001$ ). There is evidence that if parents' degree of acculturation is higher, then their adolescent children will be higher achievers in SES but if parents' degree of acculturation is lower, then their adolescent children will be lower achievers in adulthood.

#### **Gender difference in the structural model.**

Gender group comparison was conducted to examine if gendered patterns exist in the structural model. Figure 6 and 7 display standardized coefficients, standard errors, measurement errors, and  $R^2$  for boys (Figure 6) and girls (Figure 7). The structural model with gender groups showed a good fit: chi-square = 142.42 (df = 104),  $p$ -value < .001, RMSEA = .057 [.031–.079], SRMR = .068, CFI = .92, GFI = .91. The variables included explained 73% of variances for boys and 41% of variances for girls. Regarding the hypothesized paths, gender difference was found in four paths, 1, 3, 5, and 8.

Path 1 (i.e., positive relationship between parents' acculturation and parental involvement) was supported in the girls' group ( $\beta = .57, p < .001$ ) but not supported in the boys' group ( $\beta = .16, p > .05$ ). There is evidence that parents with daughters who

have higher English proficiency were more likely to be involved with their daughter's education at school or at home than those parents who have lower English proficiency. However, for parents with sons, this likelihood was not supported in evidence.

Path 3 (i.e., negative relationship between parental involvement and parent-child conflict) was supported in the boys' group ( $\beta = -.97, p < .05$ ) but not supported in the girls' group ( $\beta = -.18, p > .05$ ). It is evident that when parents are less involved with their sons' education, parent-son conflict was more likely to increase. However, for the parent-daughter dyad, this likelihood was not supported in evidence.

Path 5 (i.e., positive relationship between adolescents' self-esteem and their SES achievement in their adulthood) was supported in the girls' group ( $\beta = .63, p < .05$ ) but not supported in the boys' group ( $\beta = .22, p > .05$ ). There is evidence that girls who have higher self-esteem were more likely to achieve higher SES in their adulthood. However, for boys, this likelihood was not supported in evidence.

Path 8 (i.e., positive relationship between parents' acculturation and adolescents' SES achievement) was supported in the boys' group ( $\beta = .58, p < .05$ ) but not supported in the girls' group ( $\beta = .73, p > .05$ ). It is evident that boys whose parents have a higher degree of acculturation were more likely to achieve higher SES in their adulthood. However, for girls, this likelihood was not supported in evidence.

#### **Effects of control variables.**

Parents' gender effects on parental involvement were controlled and not statistically significant ( $\beta = .06, p > .05$ ). Adolescents' gender effects on parent-child conflict, self-esteem, and SES achievement were controlled and not statistically significant ( $\beta = .09, p > .05$ ;  $\beta = -.07, p > .05$ ;  $\beta = .04, p > .05$ , respectively). Parents' SES

effects on parents' acculturation, parental involvement, and adolescents' SES achievement were controlled. Parents' SES effects on parental involvement were not significant ( $\beta = -.03, p > .05$ ) but were statistically significant in relations with parents' acculturation ( $\beta = .54, p < .001$ ) and with adolescents' SES achievement ( $\beta = .17, p < .05$ ). Adolescents' depression effects on parent-child conflict and adolescents' self-esteem were controlled and statistically significant ( $\beta = .44, p < .001$ ;  $\beta = -.21, p < .05$ , respectively).

The effects of the control variables were different along with gender: A positive effect of parents' SES existed with regard to their son's SES achievement ( $\beta = .46, p < .05$ ) but not on their daughter's SES achievement ( $\beta = .26, p > .05$ ), and a negative effect of adolescents' depression existed on boys' self-esteem ( $\beta = -.23, p < .05$ ) but not on girls' self-esteem ( $\beta = -.06, p > .05$ ). It is evident that boys with parents with higher SES were more likely to achieve higher SES. However, for girls, this likelihood was not evident. In addition, evidence showed that boys who have higher depression were more likely to have a lower self-esteem but this was not evident for girls.

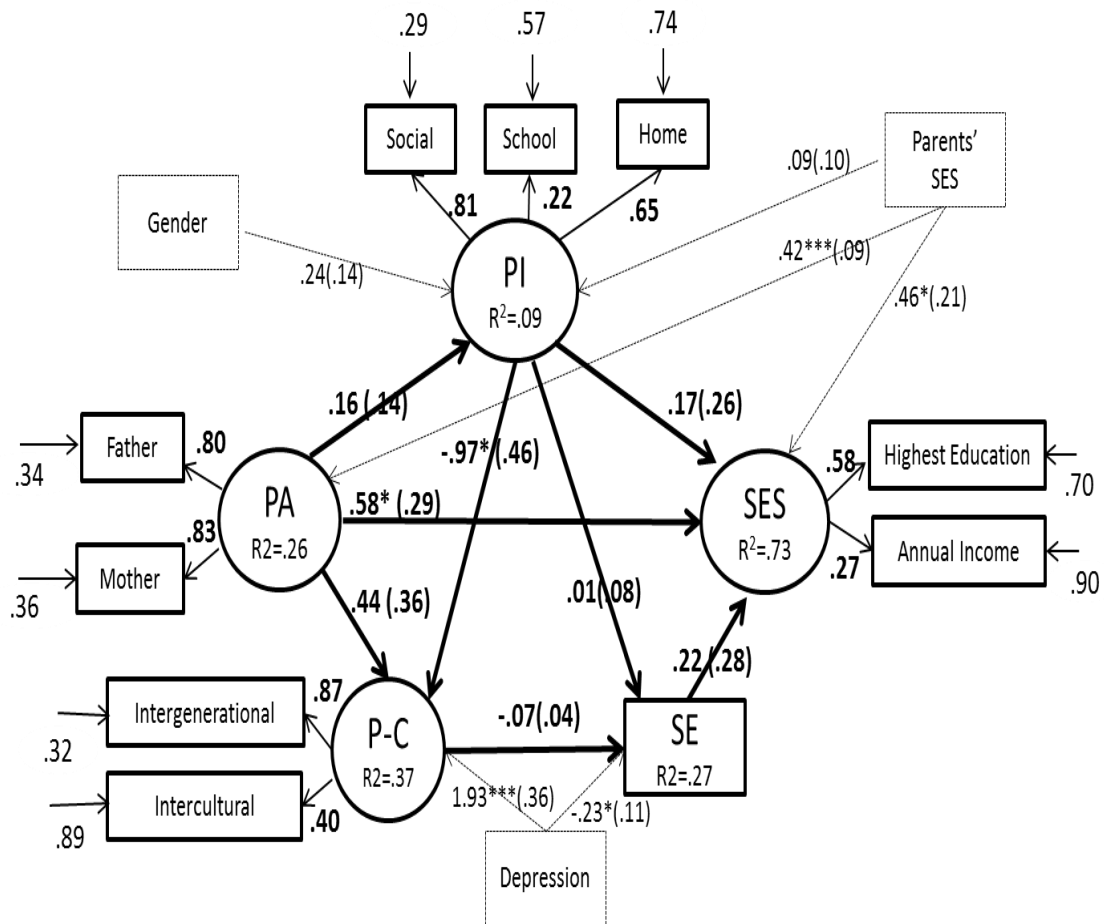
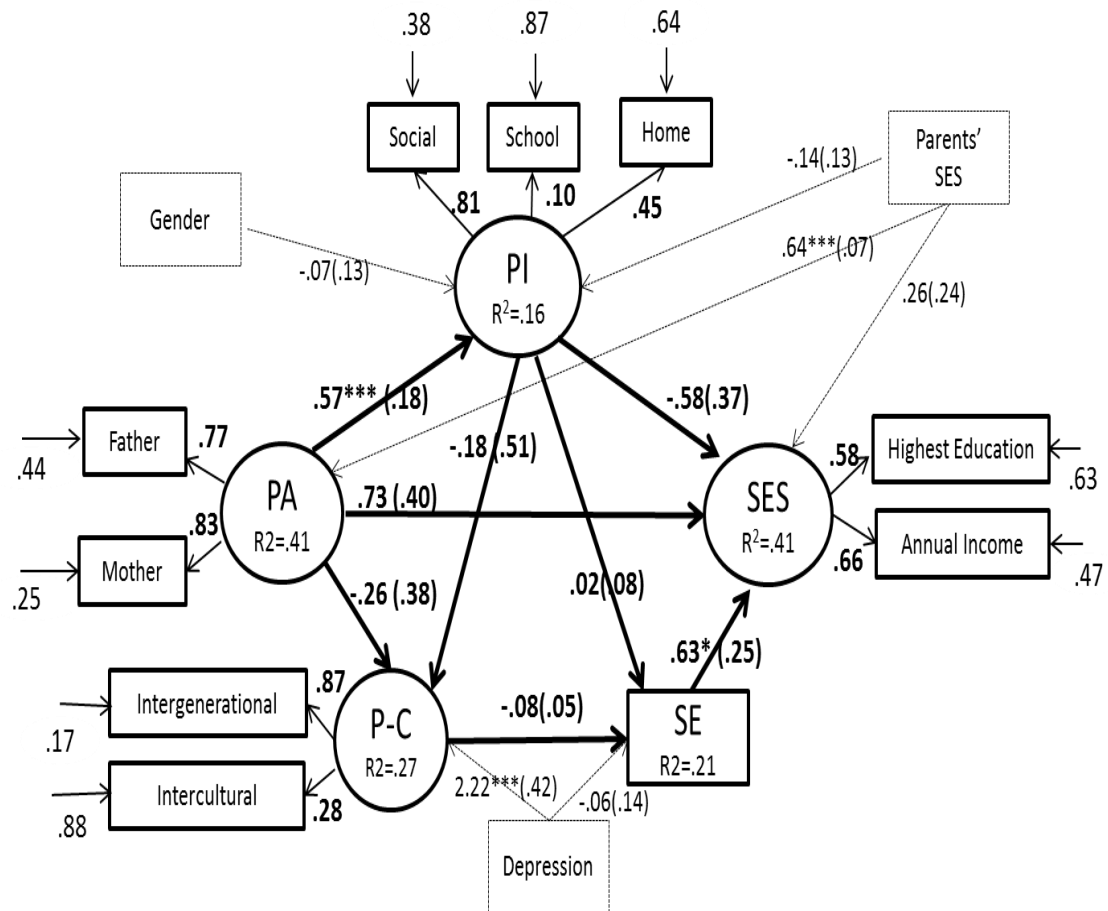


Figure 6. Standardized coefficients for model of Southeast Asian immigrant boys' long-term SES achievement. PA = Parents' Acculturation; PI = Parental Involvement; P-C = Parent-child Conflict; SE = Adolescents' Self-Esteem; SES = Adolescents' Socioeconomic Status Achievement. Control variables in dashed rectangles. Standard Errors in parentheses.  $\chi^2 = 142.42$  ( $df = 104$ ,  $p \leq .00$ ), RMSEA = .057 [.031 - .079], SRMR = .068, CFI = .92, GFI = .91. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .



*Figure 7.* Standardized coefficients for model of Southeast Asian immigrant girls' long-term SES achievement. PA = Parents' Acculturation; PI = Parental Involvement; P-C = Parent-child Conflict; SE = Adolescents' Self-Esteem; SES = Adolescents' Socioeconomic Status Achievement. Control variables in dashed rectangles. Standard Errors in parentheses.  $\chi^2 = 142.42$  ( $df = 104$ ,  $p \leq .00$ ), RMSEA = .057 [.031 - .079], SRMR = .068, CFI = .92, GFI = .91. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

## **Chapter 5. Discussion**

This study reveals the individual factor effects of family processes and adolescent individual characteristics in Southeast Asian immigrant adolescents' long-term SES achievement. More essentially, the interplay effect of family processes and adolescent individual characteristics takes a critical role in the adolescents' SES achievement by potentially mediating or moderating the parents' SES effect. Understanding the SES achievement process of the immigrant adolescents provides with theoretical and methodological implications about conducting research on and practical implications about how to help immigrant adolescents succeed in the host society socioeconomically.

### **Discussion of the Results**

#### **The conceptual model.**

Research on Southeast Asian immigrant adolescents' SES achievement has been conducted within a single dimension or at most two different dimensions, which is the dimension of context: Teranishi's (2010) parental human and financial capital, Kim's (2002) and Lee's (2001) parental English proficiency, Bankston et al.'s (2002) parents' SES and self-esteem, etc. According to Bronfenbrenner's bioecological perspective, however, human development is product of human and environment in a given time rather than product of one determinant alone.

The model proposed explains the joint contributions of Process (P), Person (P), Context (C), and Time (T) to Southeast Asian immigrant adolescents' development. The interplay effect of PPCT on immigrant adolescents' development is greater than the sum of the individual effects of each variable (Bronfenbrenner, 1992). In this instance, although not all relationships of PPCT are significant individually, a model incorporating

the non-significant relationships as a whole is significant to explain and predict immigrant adolescents' development in terms of SES achievement. According to Bronfenbrenner (1989), every variable is a component of a system to produce a joint synergistic effect on human development rather than a just determinant to development. For example, although there is no significant direct effect of parental involvement or a significant direct effect of self-esteem on adolescents' SES achievement, self-esteem is not the only significant determinant. Changes in parental involvement as a component of a system contribute to change in self-esteem, which makes differences in human development.

This study supported previous studies (e.g., Teranishi, 2010; Portes et al., 2005) in which scholars found that parents' SES is an influential contributor to immigrant children's SES achievement. Although the variable was a control variable in this study, it was the most significant among all the variables, including control variables, in the model. The class reproduction framework by parents' SES belongs to a model that has only one dimension of context in explaining immigrant adolescents' development, which is one that does not yet relevantly represent the joint functions of human and the environment that bring about influential effects on human development (Bronfenbrenner, 1988). Based on the ecological perspective, it is implied that the class reproduction theory is too simplistic to explain that the context of parents' SES does not operate on all immigrant adolescents in the same way. Even similar parents' SES would bring about different effects on human development because of different quality of family processes that may change personal characteristics, which must considerably affect the course of one's future development (Bronfenbrenner, 1988). Moreover, from the results of this study, it should



be noted that the interplay effect of family processes (Process), parents' host language proficiency (Context), personal psychological well-being (Person), and passage of eight years after the life experience or life transition from adolescence to adulthood (Time) can change the negative effect of poorer family background or the positive effect of richer family background on immigrant adolescents' development. This means that the interplay effect of PPCT between family background and children's SES achievement can play the role of an accelerator downward or upward (i.e., moderating effect) or the role of a buffer to ameliorate its direct negative effects on immigrant adolescents' development (i.e., mediating effect) (Bronfenbrenner, 1988).

Theoretically, the interplay effect of the PPCT model between family background and immigrant adolescents' SES achievement means that changing at least one of the components under the PPCT model can lead to change to the whole effect of PPCT on adolescents' development due to the interactive nature of the components. For instance, for immigrant children with low-SES parents, if parent-child conflict decreases even a little and self-esteem increases even a little, the effects can change to a more benign cycle of immigrant adolescents' development in which the chain of class reproduction breaks off by buffering the negative effect of parents' low SES. On the other hand, if such children's parent-child conflict increases and their self-esteem decreases in adolescence, the cycle would not stop but would strengthen.

Basically, the PPCT conceptual model is applicable to both genders' development. Boys and girls show similarities in development in terms of the interplay effect of family processes, self-esteem, and family context that contributes to differential SES achievement for adolescent boys and girls. However, gender difference emerges in the

power of the model and significant separate paths in the model. First, with respect to the power of the model, the proposed model seems to be more predictive of developmental outcomes for boys than for girls: girls' SES achievement is less associated with the factors of family and self-esteem in family context that were included in the model than boys' (.41 for girls versus .73 for boys in  $R^2$  value). Second, with respect to significant separate paths, although previous studies (Zhou, 1997; Rumbaut, 1994) revealed parental involvement as a significant contributor to adolescents' achievement this study shows gendered pattern in parental influence on adolescents' SES achievement. Girls' SES achievement is associated more with the personal characteristic of self-esteem and associated less with parents' factors (i.e., parents' SES, parents' degree of acculturation, and parental involvement). Ironically, although parents with daughters are significantly more involved with their daughter's educational activities, this effort by parents does not seem to help girls' SES achievement. The less-involved parents of sons play a positive role in sons' SES achievement.

Girls' SES achievement is more dependent on their personal characteristics (i.e., self-esteem), but boys' SES achievement is more dependent on parents (i.e., parental involvement and parent-child conflict). This is a consistent outcome with previous studies. Girls showed more independent from parents than boys pursuing their educational and occupational goals (Zhou et al., 1998; Smith-Hefner, 1993). Seemingly, girls' achievement is better (Song et al., 2004) than boys' or at least comparable to boys', as shown in this study. As seen here, being a son or a daughter leads to different interactions within the immigrant family context, which leads to divergent developmental paths and outcomes.

### **Hypothesized paths in the model.**

*Parents' acculturation, parental involvement, and parent-child conflict.* This study revealed that Southeast Asian immigrant parents are willing to be involved with their children's education, but their involvement is limited by their degree of acculturation into the host society. As Portes et al. (1996) asserted, it is parents' degree of acculturation that enables immigrant parents to guide, support, and monitor their children's development at home and outside the home in the host society. It has been reported that English proficiency is a key for immigrant parents to be involved with their children outside the home (Sohn et al., 2006; Thao, 2003; Kim, 2002). Asian foreign-born parents were significantly less involved with their children's school activities than other groups of parents, including white, Hispanic, and Asian native-born counterpart parents, because of the disadvantages of lack of English and minority status (Turney et al., 2009). Taking into account that more than four-fifths of the participants of this study were foreign-born parents, it is not surprising that parents' acculturation is strongly associated with positive parental involvement. Moreover, this study found that parents who acculturate more to the mainstream culture are more likely to be involved with their children at home. This implies that more acculturated parents are more likely to receive knowledge about adolescents' current and future development by contacting teachers or other parents outside the home, which makes the parents involved with their adolescent children at home. Southeast Asian immigrant parents with limited English proficiency live in linguistically, socially, and systemically isolated neighborhoods where there are limited community resources to support the parents (Xiong et al., 2004; Zhou et al., 1998). Such limited accessibility to community resources may lead the parents to have less

knowledge about their children's development and limit their ability to find ways to help and support their children at home.

Parental involvement changes immigrant family dynamics positively to the extent that parents can participate in their children's education at school or at home with proficient English. Parents' involvement leads immigrant families to reduce parent-child conflict by closing the adolescents' educational expectations and goals (Zhou, 1997; Rumbaut, 1994). Taking Southeast Asian immigrant parents' high expectations about their children's academic achievements into account (Zhou et al., 1998; Smith-Hefner, 1990), parents and adolescents may engage in increasing conflict as they have discrepancies about academic expectations. Moreover, Thao (2003) and Xiong et al. (2004) reported that parental involvement mattered in good parent-child relationships: adolescents whose parents were less involved with school activities evaluated their parents' parenting more negatively and felt distant from their parents, with anger about their uncertainty and anxiety about their future education. An interesting finding is the non-significant relationship between parents' acculturation and parent-child conflict. The results suggest that direct engagement between parents and adolescent children, rather than parents' English proficiency itself, has more of an effect on the adolescents. Direct parent-child engagement leads the adolescents to create and keep emotional ties to their parents and overcome cultural and generational discrepancies from their parents (Oh et al., 2010). Possibly, children in adolescence are mature enough emotionally and cognitively that they can understand their parents' language barriers in the host society. For this reason, they do not seem to respond with conflict to their parents' degrees of acculturation.

Different gender-related patterns are found in the relationships among parents' acculturation, parental involvement, and parent–child conflict. First, although parental involvement scores are higher among parents of girls than parents of boys, English is not as influential for parents of boys as it is for parents of girls. In other words, parents' involvement with their sons is not stratified by their English proficiency, while parents' involvement with their daughters is. Second, the relational dynamic of the son–parent dyad is more affected by parents' levels of involvement than that of the daughter–parent dyad: boys take advantage of higher parental involvement by demonstrating lower parent–child conflict but are disadvantaged by lower parental involvement by demonstrating higher parent–child conflict. However, girls' levels of conflict with their parents are not much affected by their parents' levels of involvement.

Mismatch between parents and their sons or daughters has been detected: parents' with daughters are more oriented toward involvement with their daughters' education, but high parents' involvement does not effectively ameliorate parent–daughter conflict. On the other hand, parents with boys are less oriented toward involvement, but this reduced involvement makes some boys further escalate conflict with their parents.

*Parental involvement, parent–child conflict, and self-esteem.* With respect to immigrant adolescents' self-esteem development, adolescents obtain greater benefits from the quality family relationships and support compared to those from good friends and schools (Greene et al., 2005). Harm from conflict with parents is also predictive of adolescents' self-esteem (Cho & Bae, 2005; Lam, 2005). It is not a surprising finding that, taking into account the fact that self-esteem refers to self-worthiness and self-confidence and is reflected by influential figures (Rosenberg, 1965; Coopersmith, 1967; White,

1959), conflict with parents negatively influences adolescents, harming their confidence and worthiness irrespective of gender.

Hong et al. (2005) conducted a study on the effect of parental involvement on Asian immigrant adolescents' self-esteem. They found that the relationship between adolescents' self-esteem and parental involvement—such as communication with children, participation in school activities, parental aspiration, and supervision—was not significant (Hong et al., 2005). Consistent with Hong et al. (2005), this study suggests that Southeast Asian immigrant parental involvement does not directly enhance or reduce adolescent children's self-esteem. Notably, parent–child conflict was directly negatively associated with adolescents' self-esteem. Based on the results for these two types of relationship, Southeast Asian immigrant adolescents' self-esteem seems to be more influenced by the quality of parent–child relationship (i.e., parent–child conflict) rather than by parental involvement. Adolescents who participated in this study were an average of 15 to 17 years old. The participants may have been mature enough to understand the mainstream language barriers most immigrant parents face to interact with their teachers, peers, or parents of peers. For Southeast Asian immigrant adolescents, parents' mainstream language proficiency does not matter in their psychological well-being. What really matters for immigrant adolescents' self-esteem is a good relationship with their parents, with opportunities to share emotions and chances to resolve cultural and generational differences, not how often their parents show up at school or at home.

The effects of parental involvement and parent–child conflict on adolescents' self-esteem do not differ by gender. Although girls appear to have more independence from their parents' influence, girls' self-esteem can be damaged by negative relationships with

their parents as much as boys' self-esteem can be. Accordingly, overall family relational context has an influence on development of immigrant adolescents' self-esteem across genders.

***Parents' acculturation, parental involvement, and adolescents' SES***

***achievement.*** The study outcome indicates that Southeast Asian immigrant adolescents' SES is very strongly affected by parents' degrees of acculturation. Lee (2001) observed that Hmong American adolescents miss class occasionally when taking the role of cultural broker, making it difficult to catch up on academic work. Added to this, the adolescents had tight schedules that did not allow them to spend enough time on homework in Lee's study (2001). Acculturated parents also help their children achieve better (i.e., higher college entrance rates) by creating a home culture and participating in activities aligned with academic demands to succeed (Teranishi, 2010), and this has a long-lasting impact on the children's SES achievement.

Whether parental involvement contributes to immigrant adolescents' SES achievement is controversial. This study revealed that parental involvement did not play a part in children's later SES achievement or even weaken the effect of parents' SES on their children's SES achievement, as White et al. (2000) and Teranishi (2010) implied. Rather, this study found that parental involvement may be more related to an emotional or relational bond with their children than to children's achievement, also suggested by Yan et al. (2005) and Fan et al. (2001). Therefore, the relationship between immigrant parents' involvement and their children's SES achievement may be associated not directly but indirectly through the quality of the parent-child relationship, such as their level of conflict and emotional ties.

Although gender has no effect on the relationship between parental involvement and adolescents' SES achievement, there is a positive effect of parents' acculturation on children's SES achievement for boys, but not girls. This suggests that Southeast Asian immigrant girls are more independent from and less influenced by their parents' circumstances than boys (Lee, 2001; Zhou et al., 1998; Rosenthal et al, 1996). This gendered inclination applies to SES achievement, too. In line with this result, there was no effect of parents' SES on girls' SES achievement, but a significant effect on boys' SES achievement. This also seemed to reflect girls' independence from their parents' circumstances in terms of SES achievement.

***Self-esteem and long-term SES achievement.*** Recalling the positive relationship between self-esteem and SES achievement within this ethnic group, this result dissents from Suzuki's (1977) and recently Qin and colleagues' (2012, 2008) assertions that the cost of being high achievers sacrifices Asian Americans' psychological well-being. Instead of sacrificing self-esteem to be high achievers, this study suggests that Southeast Asian immigrant adolescents benefit from higher self-esteem through higher SES achievement. In fact, self-esteem in adolescence has been known as one of the factors contributing to future educational and occupational attainment in studies conducted with within-group research design drawn from diverse ethnic groups (e.g., Whitesell, Mitchell, Spicer, & the Voices of Indian Teens Project Team, 2009; Flouri, 2006).

The positive relationship that clearly emerges in this study can be related to inclusion of family background and parents' influence in the model. Arguing a causal effect of self-esteem on adolescents' achievement, Baumeister, Campbell, Krueger, and Vohs (2003) suggested that family factors may act as the third variable between self-



esteem and achievement. Adolescents' psychological well-being and its consequential developmental outcomes should be considered along with family environment because family context is the foremost environment affecting child development. Immigrant adolescents' development is not an exception. Bankston et al. (2002) also claimed that the effect of family background (i.e., parents' SES and immigrant status) could have affected the relationship between Asian immigrant adolescents' self-esteem and academic achievement, causing them to do well but not feel positively. However, in a study by Bankston and colleagues (2002), when family factors were added, the effect of self-esteem on Asian immigrant adolescents' academic achievement changed greatly. Accordingly, it is possible that when Southeast Asian immigrant adolescents feel good, they will do well in the future to the extent that family factors have no effect or that family effects are controlled.

The finding about gender difference in the positive relationship between adolescents' self-esteem and adolescents' SES achievement is unexpected. The result indicates that girls' higher self-esteem predicts higher SES achievement while boys' self-esteem predicts their long-term SES achievement. This result is quite different from previous studies' conclusions. Song et al. (2004) and Mahaffy (2004) studied the relationship between adolescents' self-esteem in adolescence and their later lucrative college major decisions (Song et al., 2004) and later SES achievement (Mahaffy, 2004) using multiethnic aggregated data. As a result, they observed that the positive relationship between adolescents' self-esteem and later SES achievement (Mahaffy, 2004) and later SES achievement potential due to lucrative majors (Song et al., 2004) was significant for males but not for females. Mahaffy (2004) pointed out, "Perhaps lower

self-esteem has a greater negative influence for one group (say, girls) than another group. Conversely, high self-esteem might lead to better outcomes for one group (say, boys) relative to another group” (p. 312). Mahaffy’s (2004) assertion is partly applicable to this study in that lower self-esteem has a greater negative impact for girls because this study reveals that girls take advantage of higher self-esteem or are disadvantaged by lower self-esteem in their long-term SES achievement, whereas boys are neither advantaged nor disadvantaged by levels of self-esteem. In short, Southeast Asian immigrant girls’ development is more affected by their own personal attributes than the development of their boy counterparts.

In summary, based on the previous literature and theory that underscores the conceptual framework (Chapter 2), this chapter discussed the results. First, the conceptual model as a whole shows the interplay effect of the factors included in the model and how they contribute to immigrant adolescents’ development. Second, the separate relationship of each of the variable (i.e., the hypothesized paths) from the whole model shows additive effects on immigrant adolescents’ development. Finally, gender impacts some of the separate relationships as well as the whole dynamic of Southeast Asian immigrant adolescents’ long-term SES achievement.

## **Implications**

### **Theoretical and methodological implications.**

This study began with a question about emphasizing only context in studies based on the bioecological perspective. Bronfenbrenner also criticized such a research frame as “the failure of success” (1992, p. 107) and “context without development” (1986, p. 288). This study provides evidence that the components Person, Process, Context, and Time are

essential to bringing about a interplay effect that is more than the sum of the separate effects (Bronfenbrenner, 1988), leaving separate effects that are also meaningful. In particular, interplay effects help to grasp how people and the environment influence human development interactively. In addition, this study suggests that the interplay effect can modify developmental paths as a moderating or mediating effect, as described previously, by changing even one of components because of interactive features among Person, Process, Context, and Time. Accordingly, it is meaningful that this study implements the PPCT model successfully to examine immigrant adolescents' long-term SES achievement using the SEM method.

The SEM method is preferred for this study, especially for examining the additive effects and the joint effects of variables included simultaneously. Moreover, this study adopted a short-term longitudinal design called for by Bronfenbrenner (1988), in which data are drawn from the same group of participants before and after the life transition from adolescence to adulthood. This kind of research design is a “ready-made experiment of nature” (Bronfenbrenner, 1988, p. 84) that minimalizes possible compound effects from cross-sectional design. Adopting the SEM method and a short-term longitudinal design, this study offers progress on understanding the complex mechanisms and the long lasting effect of family context and personal characteristics on Southeast Asian immigrant adolescents' SES achievement.

### **Practical implications.**

*Implications for parent education.* Knowledge about the important roles of immigrant family processes and adolescents' psychological well-being in the adolescents' SES achievement can contribute to improving interventions for and the education of

Southeast Asian immigrant parents. Especially, the research outcomes give insights on community-based parent education with respect to parents' improvement in language acculturation and in family relationship.

First, improvement of parents' context in English proficiency could be a cornerstone for immigrant families' better family relationships by allowing parents to be more involved with children because, as shown in the study of Turney et al. (2009), language barriers may deteriorate parents' sense of efficacy about school involvement. In the study of Turney et al. (2009), parents with language barriers felt more often difficulties in school involvement. Along with improvement of English proficiency, parents' self-efficacy in children's education must be considered. Chrispeels and Rivero (2001) implemented the Parent Institute for Quality Education (PIQE) program to Latino immigrant parents in which educators intended immigrant parents to have more sense of efficacy about children's education and school success and, as a result, the parents were more able to be involved with their children's school and social lives. In the PIQE program, educators as cultural brokers provided with information about practice and culture of American school/education system, alternative ways of parent involvement at school and at home, and chance to explore issues of school-family relations in a culturally sensitive educational environment. The program intended that immigrant parents enhance sense of place and efficacy about their children's education and school lives. Although the PIQE program was targeted to Latino immigrant parents parent education for enhancement of self-efficacy about children's educational involvement at school and at home combined with English language learning would be valuable to Southeast Asian immigrant parents because more than half of the population are foreign-

born (Pfeifer, Sullivan, Yang, & Yang, 2012) and a substantial number of the foreign-born immigrants might be parents with limited English. Saint Paul public school district in Minnesota has adopted PIQE and provided Southeast Asian immigrant parents and other immigrant parents with a free six-week parent education program ([http://engagement.spps.org/uploads/pa\\_info\\_sheet.pdf](http://engagement.spps.org/uploads/pa_info_sheet.pdf)).

Second, parent educators could provide education programs that help the families minimize cultural and generational gaps between the parents and their children. For example, Ying (2009) has developed and successfully implemented a community-based intervention program, Strengthening Intergenerational/Intercultural Ties in Immigrant Families (SITIF), with eight classes to 30 Chinese American parents in high Chinese concentration cities in California. The intervention program incorporated emotional awareness of immigrant parent–child conflict into cognitive knowledge about cultural and generational differences. The program also provided the parents with expanding new repertoire of parenting skills for enhancing intergenerational communication and understanding and intimacy incorporating ethnically specific parenting methods, which is viewed as a component of culturally sensitive parent education (Xiong et al., 2006). SITIF’s effectiveness was assessed by the participants objectively as well as subjectively. The participating parents reported subjectively that their parenting changed positively and relationship with children improved, and showed objectively successful learning about awareness/knowledge about cultural discrepancies, rationale and implementation of new parenting skills. Although further program evaluation would be needed when implementing SITIF to any other immigrant parents with different cultural backgrounds from Chinese, SITIF program would be a potential resource for planning parent

education for Southeast Asian immigrant parents. These parents need to understand discrepancies between what they are parenting and what their children really feel and need is essential for promoting Parent–child relationship (Xiong, Eliason, Detzner, & Cleveland, 2005). Xiong and his colleagues (2006) developed culturally specific parent education curriculum, *Helping Youth Succeed*, for Southeast Asian immigrant parents and adolescents. The curriculum also intends them to primarily deal with generational conflicts incorporating bicultural values, beliefs, and norms in parenting and in growing (Xiong et al., 2006).

Although community based parent education is beneficial for immigrant parents and children, school- based parent education may better provoke children's school success. For example, Furumote (2003) implemented a Family Math program to Latino parents who had limited English proficiency in an urban school district in southern California (68 percent to 78 percent of children across participating schools participated in English Language Learner class). Furumote (2003) intended to empower immigrant parents to be actively involved with children's math through parent education comprised of critical analysis, collective social action, and reflection (Furumote, 2003). As a result, according to Furumote (2003), the participating parents were observed more proactive involvement with child's school: The parents took a role of parent leader that engaged with the other parents, teachers or school staff for improving their and other children's math concepts and skills. Furumote's study (2003) provides insight on the effect of school-based parent education combined with the child's academic demands, which has brought about positive outcomes to the immigrant children and the parents and to the school.

This study gives an empirical foundation for community-based or school-based parent education or intervention that attempts to promote the immigrant Parent–child relationship, parents’ language ability, parental involvement, and/or children’s school adaptation. Immigrant children’s SES is influenced by family processes and adolescents’ psychological well-being in the context of parents’ different degrees of acculturation, which are all changeable factors related one to another through parent education or intervention program.

***Implications for K-12 school policy.*** Under the current education system, as what Baquedano-López, Alexander, and Hernandez (2013, p. 161) pointed out as “serious intergenerational effects,” the intergenerational gap between immigrant parents and their children increases because children are exposed to English and the host culture every day while the parents have many more limitations and fewer chances to learn English and to be exposed to the host culture. Baquedano- López et al. (2013) counted the dynamic feature between immigrant families and school system as “potentially subtractive and linguistically and educationally restrictive” (p. 161). This implies that such widening generational and cultural gaps due to different “institutional support” (Stanton-Salazar & Dornbusch, 1995, p. 117) between parents and their children impede the quality of immigrant family processes and subsequent effects on adolescents’ development for the immediate and distant future. Accordingly, the important policy issues for Southeast Asian immigrant families are how to re-socialize the families to be more consonant among family members in the acculturation of the domain of American culture.

The children’s acculturation process should accompany their parents’ acculturation process, creating a balance between the two cultures and sharing more life

experiences in the new host society between parents and children. To do this, for the children, more focused on education about heritage culture while, for the parents, more focused on education about acculturation to the host culture (Kwak, 2003). Educational policies, therefore, should include the parents as educational partners for their children's school success. Schools have, however, had unequal partnership with immigrant parents and neglected the parents' needs about involvement with their children's education due to their different language and culture from those of mainstream (Gaetano, 2007; Furumoto, 2003). Even though the immigrant parents are not fluent English users, they should be included as ongoing acculturating Americans through the experience of public school systems as well as through being school partners for their children.

In addition to balanced acculturation between parents and children, it is also important for immigrant children to maintain their heritage culture for their relationships and subsequent adolescents' results. For example, Costigan and Dokis (2006) reported that a cultural discrepancy between Chinese immigrant parents and their adolescents in Canada was greater with regard to the level of endorsement in their heritage culture than in Canadian culture. In addition, adolescents who experienced more discrepancy with their parents in the Chinese culture showed more psychological distress, while adolescents who experienced more discrepancy in Canadian culture did not (Costigan et al., 2006). To bridge the gap in the heritage culture between immigrant parents and their children, Costigan et al. (2006) suggest that schools ought to promote that immigrant children value their heritage culture through educational practice and policies. This study provides school policymakers with evidence that it is beneficial for the immigrant students to keep engaging with their heritage culture through the school curriculum and



activities at the group level. Accordingly, educational policy must be built with a balance between the immigrants' heritage culture and the American culture by helping families maintain their heritage culture. As Sleeter and Grant (2003) suggested, the multicultural education approach which embraces cultural pluralism and structural equality connected to social justice, enables the immigrant parents and the children to actively participate in education practices. In this regard, school policymakers need to create an educational climate that makes immigrant parents and children feel safe from discrimination due to such things as their skin color, language use, cultural orientation, or misunderstanding of school norms.

### **Limitations and Future Research**

Although the findings of this study contribute to understanding how family process and individual self-esteem and gender impact Southeast Asian immigrant adolescents' later SES achievement, there are some limitations in interpreting the statistical results. The limitations include understanding relationships between two variables in the SEM model, technical issues of sample size for SEM, validity issues of some measures, and assumptions of unidirectional model.

First, the Structural Equation Modeling analysis does not test causal relationships among latent variables. Those variable relationships are considered as being associated (Kline, 2011; Maruyama, 1998). Data for this study was obtained through a survey, not employing experimental design, meaning that it is possible that there are hidden variables that relate to the tested variables. Therefore, although this study examined the effects of the family context, family processes, and adolescents' self-esteem on the adolescents' long-term SES achievement, the results do not necessarily represent the direct practical

meaning of effects. Rather statistical or theoretical meaning of the effect is conferred on the variables related to adolescents' long-term SES achievement. Better predictability could be achieved through employing a longitudinal research design, especially for repeated measures of the independent variables (i.e., parents' acculturation, parental involvement, parent-child conflict, and self-esteem). This would be an advanced step to explore casual relationships among the independent variables (Baumeister et al., 2003).

Second, regarding technical issue of sample size in the SEM model, although the fit indices of the gendered model were acceptable (i.e., RMSEA=.057; CFI=.92; SRMR=.068; GFI=.91) the results of the gendered model can raise statistical power issues, especially in path coefficients and significant levels because of the sample sizes (115 for boys and 114 for girls). Although no minimum sample size for each group to obtain sound group comparison in the SEM method found in literature, if the claims of Bentler et al. (1987) (i.e., 5 to 10 cases per indicator) and Anderson et al. (1988) (150 or more) are adopted to test group comparison, minimum sample size for each gender group would be between 70 to 140 by Bentler et al. (1987) and 150 by Anderson et al. (1988). Based on Bentler et al. (1987), the sample size needed was modest while, based on Anderson et al. (1988), although the overall sample size (i.e., N=229) was greater than the minimum the sample size for group comparison (i.e., N=115 for boys and 114 for girls) was smaller than the minimum. Future researchers should consider a substantial sample size to retest the gendered model.

Third, regarding validity issues of some measures, although the subsample for this study was obtained from a well-represented national panel data of CILS, the data was not collected for specific research questions for this study. This means that, when operational

definitions of measures are naturally modified, validity issues can result in some measures when conducting research with secondary data (Hofferth, 2005; Sullivan, 2001). For example, parent–child conflict was measured by the adolescents’ experience about their embarrassing moments by their parents (i.e., intercultural conflict) and about their disagreements and emotional distance from their parents (i.e., intergenerational conflict). Although embarrassing experiences by parents can be composed of intercultural conflicts between parents and adolescents, it is possible that the validity of the measure can be questioned depending on what constitutes intercultural conflict. For example, whether perceptions about cultural discrepancies between immigrant parents and adolescents including cultural values and norms (e.g., Ahn, Kim, & Park, 2009), or incidental events which the parents and the adolescents experience directly (e.g., Ying et al., 2008) would be different conceptual and operation definitions. Further discussions or critical reviews are demanding about what constitutes intercultural and intergenerational conflict of Southeast Asian immigrant families.

Fourth, the design of this study limited an exploration of separate paths that are only unidirectional, especially in the relationships between parental involvement (or parent–child conflict) and self-esteem. In the bioecological perspective, theoretically, the relationships must be interactive in the sense that one influences another and vice versa. However, this study assumes that parents’ influence on children’s development is more powerful than children’s influence on parents’ behavior. Identifying a PPCT model in this study would be a cornerstone to moving forward with more sophisticated research models that contain bidirectional paths and that satisfy model fit at a same time. Further research is needed to determine whether bidirectional path models are significant.

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